temple

Creating sustainable futures

Stable Block, Leonardslee Lakes and Gardens

Preliminary Ecological Appraisal and Preliminary Roost Assessment

Report for Leonardslee Lakes and Gardens

Job Number	9105			
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Contents

Executive Summary

Temple was commissioned in November 2022 by Leonardslee Lakes and Gardens to carry out a Preliminary Ecological Appraisal (PEA) and a Preliminary Roost Assessment (PRA), comprising a UK habitat survey (UKHabs), protected species assessment, bat roost assessment and ecological evaluation of land at Stable Block, Leonardslee Lakes and Gardens, West Sussex (henceforth referred to as 'the Site'). The PEA and PRA is required in support of a planning application for an extension and renovations to the existing Stable Block.

The main findings are as follows:

- The Site is located within the grounds of Leonardslee Lakes and Gardens, a 97ha Grade I listed garden, comprising lakes, a vineyard and associated buildings. The Site comprised the Stable Block with the Clocktower café, offices, residential property and associated outdoor seating, as well as the edge of the woodland that is adjacent to the east.
- The Site is not subject to any international important wildlife sites, and none are located within a 15km radius of the proposed development Site. The Site however, falls within the St Leonards watershed Biodiversity Opportunity Area (BOA). The Site sits within an area that is classified as Wood-pasture and Parkland Habitat of Principal Importance (HPI). The Site also overlaps with an area designated Deciduous woodland HPI, where a new terrace is proposed to be built.
- The closest non-statutory designated site is Old Deer Park Local Wildlife Site (LWS), located approximately 300m southeast of the Site.
- Ancient woodland was present within 30m of the Site, and the site sits within an area classified as wood-pasture and parkland, with a small area of degraded but potentially qualifying woodland present on Site. A Construction Environment Management Plan (CEMP) is recommended to mitigate impacts to these habitats.
- **Roosting and foraging/ commuting bats –** Bat droppings and features with suitability to support both summer roosting and hibernating bats were recorded during the PRA. The Stable Block is therefore a Confirmed Roost. The works will therefore need to

proceed under a Mitigation Licence from Natural England. In line with current legislation and guidelines, the Stable Block will require three bat emergence/re-entry surveys to characterise the roost and design appropriate mitigation thereafter. The woodland habitat that borders the Site to the east and the Sites good connectivity to surrounding high quality foraging habitat including ancient and Ancient Replanted Woodland. Recommendations to reduce impacts on foraging bats during the operational phase of development are provided in Section 4 of this report.

- **Hazel dormice -** There is potential for dormice to use the woodland on the eastern side, which is connected to a historical hazel dormouse record. No further surveys are required but a precautionary method of works is recommended.
- **Breeding Birds -** The buildings could also potentially support breeding birds. Should any active birds' nest be discovered during the works, all works must stop, the nest must be left in situ and a suitable buffer be established around the nest until chicks have fledged or the breeding attempt complete.
- **Great Crested Newts -** The Site has no aquatic habitat but some low-quality terrestrial habitat for dispersing great crested newts. A precautionary approach to vegetation clearance and sensitive timings for the works are recommended.
- **Reptiles -** There is low suitability for reptiles on Site due to the limited vegetation and woodland within the Site boundary. Due to the small area of suitable habitat to be impacted, no further survey is necessary, but a precautionary approach is recommended.
- **Invasive Plants –** Rhododendron was the only invasive species noted on Site. This species was present within the woodland in the east. It is an offense to allow the spread of this species to any off-site habitats and mitigation has been recommended in Section 4 of this report.
- [redacted]

- **Hedgehog -** The Site supports limited foraging and commuting habitats for hedgehogs. No further surveys are recommended but the same precautionary measures to development as those laid out for [redacted] are required.

Where possible on the basis of information available to date, recommendations to enhance the importance of the Site for biodiversity in accordance with the Environment Act 2021 and national and local planning policies, have been provided. As the proposals are part of a wider set of ongoing developments within the wider Leonardslee estate, it is recommended that an enhancement plan for the whole estate is produced which incorporates the enhancements of each development. This will include a wildlife planting scheme and grassland diversity enrichment to enhance biodiversity for net-gain as well as dark-sky friendly lighting provision of nesting opportunities and inclusion of log piles where possible.

1 Introduction

BACKGROUND TO COMMISSION

1.1 Temple was commissioned by Leonardslee Lakes and Gardens in November 2022 to carry out a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of the Stable Block at Leonardslee Lakes and Gardens, Lower Beeding, West Sussex. The development of the Stable Block comprises one of five small developments currently being undertaken within the wider Leonardslee Lakes and Gardens estate. This appraisal considers land within the planning application site boundary (henceforth referred to as 'the Site') as indicated on the proposed estate plan provided by Purcell (2023).

1.2 Temple, formerly the Ecology Consultancy, were previously commissioned in 2017 to undertake Preliminary Ecological Appraisals (PEA) and Preliminary Roost Assessments (PRA) of land within seven areas and 11 buildings to reopen Leonardslee Lakes and Gardens and modernise a number of existing buildings on Site (The Ecology Consultancy, 2018b).

SCOPE OF THE REPORT

1.3 The aim of this appraisal is to provide baseline ecological information about the Site. This will be used to identify any potential ecological constraints associated with the proposed development and/or to identify the need for additional survey work to further evaluate any impact that may risk contravention of legislation or policy relating to protected species and nature conservation. Where possible, this report outlines any avoidance, mitigation, compensation and enhancement measures as may be required to ensure compliance with legislation and policy. Although enhancement measures may be used to achieve a net gain in biodiversity in line with national and local planning policies, this does not comprise a formal Biodiversity Net Gain assessment and no metric calculations have been made.

1.4 This appraisal is based on the following information sources:

- a desk study of the Site and land within a 2km surrounding radius;
- a search for international wildlife sites within a 15km surrounding radius;
- a UKHabs survey of the Site to identify and map the habitats present;
- a Species Assessment of the Site to identify features with potential to support legally protected and/or notable species including those defined by Section 41 of the NERC Act 2006 as Species of Principal Importance;
- A Preliminary Roost Assessment (PRA) of the Stable Block on Site for roosting bats and nesting birds; and
- an evaluation of the Site's importance for nature conservation.

1.5 This appraisal has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017) and as detailed in British Standard 42020:2013 *Biodiversity - Code of Practice for Biodiversity and Development* (BSI, 2013).

1.6 The survey, assessment and report were conducted and written by Maisie Worthington (BSc Hons), an experienced ecologist with five years' experience who is trained and competent in carrying out UKHabs surveys and protected species assessment. Francesca West BSc MRes, an experienced ecologist with eight years' commercial bat survey experience undertook the Preliminary Roost Assessment. Francesca is an Accredited Agent under licence number 2019-41253-CLS-CLS.

1.7 A habitat map of the Site is presented in Appendix 1 with a botanical species list of plants recorded in Appendix 2. The habitat map reflects areas observed at the time of survey. Photographs of the Site are presented in Appendix 3 and Habitat Condition Assessment forms (in accordance with Panks *et al.,* 2022) are replicated in Appendix 5.

SITE CONTEXT AND STATUS

1.8 The Site is approximately 0.12 ha in size and is centred on Ordnance Survey National Grid reference TQ 22181 25969. The Site consists of a U-shaped former carriage

house and stables that is currently in use as the Clock tower café with associated indoor and outdoor seating. The western block of the building is utilised as offices, while the south-eastern area of the building is a residential property, named Honey Cottage. Potter's cottage also adjoins the clock tower café and offices to the north-west. The Site is situated within Leonardslee Lakes and Gardens and adjacent to the Site lies the Museum and Leonardslee House. The offices, Honey Cottage and Potter's cottage were not assessed as part of the Preliminary Roost Assessment, as at the time of survey, there were no proposals for these areas.

1.9 Deciduous woodland borders the Site to the east, with Ancient Replanted Woodland approximately 30m to the east. The Site is situated in an area classified as Wood-Pasture and Parkland Habitat of Principal Importance.

1.10 The Site sits within Leonardslee Lakes and Gardens, a 97ha Grade I Listed landscaped garden with large lakes, a vineyard, recreational facilities and areas of woodland that is open to visitors all year round. Leonardslee Lakes and Gardens comprises a steep sandstone valley and seven man-made lakes interconnected with woodlands, scrub and landscaped woodland gardens adjoining. Areas of Ancient & Semi-Natural Woodland, Ancient Replanted Woodland, Deciduous Woodland and Lowland Heathland are present within the wider Leonardslee Lakes and Gardens Estate. The Gardens are bordered by a busy 'A' road to the west, but the wider landscape stretching from the Estate boundary comprises areas of agricultural land bordered by hedgerows, woodland and residential properties. It lies in a rural area north of Crabtree, Lower Beeding and is within the Horsham District of West Sussex. Haywards Heath sits approximately 10km to the east and Horsham approximately 5km to the north-west.

DEVELOPMENT PROPOSALS

1.11 The development proposals for the Site (Purcel, 2023) include internal renovations, including replacing the clocktower café with a higher-end hot meal restaurant offering, the kitchen will move to the current servery/queue space, with staff changing and pot wash where the current kitchen is. The existing WCs and

storerooms will become improved WC facilities for users of the restaurant. The courtyard will have a new build glazed conservatory style extension for additional covered tables and chairs. The existing internal seating room to the east will be freshened up, with new doorways, and a new terrace to the east will be built to extend the seating space and provide views over the gardens. Shrubs will be removed to facilitate these works.

RELEVANT LEGISLATION AND PLANNING POLICY

1.12 The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of legislation is provided in Appendix 6:

- The Conservation of Habitats and Species Regulations 2017 (as amended) (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended);
- Natural Environment and Rural Communities Act 2006;
- Environment Act 2021;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

1.13 The National Planning Policy Framework (Department for Levelling Up, Housing and Communities, 2023) and the Environment Act 2021 requires local authorities to avoid and minimise impacts on biodiversity and to provide net gains in biodiversity when taking planning decisions. In addition, in England, under Section 40 of the Natural Environment and Rural Communities Act 2006, all public bodies are required to have regard to biodiversity conservation when carrying out their functions.

1.14 Other planning policies at the local level of relevance to this development include the Horsham District Local Plan 2021- 2038 and The High Weald Area of Outstanding Natural Beauty (AONB) Management Plan 2019- 2024.

NOMENCLATURE

1.15 A botanical species list, including scientific names in accordance with Stace (2019), is provided in Appendix 2. Common names of species, in accordance with the Natural History Museum Species Dictionary (Natural History Museum (2022), are used throughout this report with scientific names given at first mention only for fauna.

2 Methodology

DESK STUDY

2.1 The following data sources were reviewed to provide information on the location of statutory designated sites[1], non-statutory designated sites[2], legally protected species[3], Species and Habitats of Principal Importance[4], and other notable species[5] and habitats[6] that have been recorded within a 2km radius of the Site:

- Sussex Biological Information Centre, the local Biological Records Centre, principally for species records and information on non-statutory sites;
- MAGIC (http://www.magic.gov.uk/) - the Government's on-line mapping service; and
- Ordnance Survey mapping and publicly available aerial photography.
- Previous ecological reports authored by The Ecology Consultancy.

2.2 A summary of key records provided by the desk study is presented in Section 3 of this report. All records have been used to inform the assessment of the potential for protected or otherwise notable species to be present at the Site to provide a preliminary view of the Site's ecological importance but these are not presented in full in the report.

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1 **Statutory designations** include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites (referred to collectively as National Site Network sites in England), National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

2 **Non-statutory sites** are designated by local authorities (e.g. Sites of Importance for Nature Conservation or Local Wildlife Sites).

3 **Legally protected species** include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981; Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); or in the Protection of Badgers Act 1992.

4 **Species/Habitats of Principal Importance** are those defined by Section 41 of the Natural Environment and Rural Communities Act, 2006.

5 **Notable species** include Species of Principal Importance under the Natural Environment and Rural Communities Act 2006; Local Biodiversity Action Plan (LBAP) species; Birds of Conservation Concern (Stanbury *et al.* 2021); and/or Red Data Book/nationally notable species (JNCC, undated).

6 **Notable habitats** include Habitats of Principal Importance under the Natural Environment and Rural Communities Act, 2006; those included in an LBAP; Ancient Woodland Inventory sites; and Important Hedgerows as defined by the Hedgerow Regulations 1997.

PRELIMINARY ECOLOGICAL APPRAISAL - HABITAT SURVEY

2.3 A habitat survey of the Site was carried out on the 30th November 2022 in clear and cold conditions.

2.4 The survey covered the entire Site including boundary features. Habitats were described and mapped following UK Habitat Classification survey methodology (UKHab, 2020). Habitats were marked on a paper base map and subsequently digitised using ESRI ArcGIS software. Habitats were also assessed against descriptions of Habitat of Principal Importance as set out by the UK Habitat Classification where appropriate.

2.5 As a formal Biodiversity Net Gain (BNG) assessment is required, UK Habitat Classifications Version 1.1, in use at the time of the survey (UK Habitat Classification Working Group, 2020) has been used for the purposes of calculating the preliminary baseline units. The condition of each of the applicable habitats present on Site has been recorded in line with the Biodiversity Net Gain 3.1 Technical Supplement which was relevant at the time of the survey (Panks *et al,*. 2022) with condition assessment forms presented in Appendix 5. A formal Biodiversity Net Gain assessment and metric calculations will be provided in a separate report.

2.6 Records for dominant and notable plants are provided, as are incidental records of birds and other fauna noted during the course of the habitat survey. The latter have been used to justify the potential presence of important ecological features where applicable.

2.7 The Site was also surveyed for the presence of invasive plant species as defined by Schedule 9 of the Wildlife and Countryside Act 1981 (as amended); however, detailed mapping of such species is beyond the scope of this commission and locations on the habitat plan are indicative only.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

2.8 The suitability of the Site for legally protected species was assessed on the basis of relevant desk study records[7] combined with field observations from the habitat survey. The likelihood of the habitat(s) supporting protected and/or notable species was ranked on a scale from 'negligible' to 'present' as described in Table 2.1.

2.9 The assessment of habitat suitability for protected or notable species was based on professional judgement drawing on experience of carrying out surveys of a large number of urban and rural sites and best practice survey guidance.

Table 2.1: Protected species assessment

Category	Description
Present	Presence confirmed by the current survey or by recent and/or desk study records.
High	Habitat present provides all of the known key requirements for a given species/species group. Local records are provided by desk study. The Site is within or close to a national or regional stronghold for a particular species. Good quality surrounding habitat and good connectivity.
Moderate	Habitat present provides some of the known key requirements for a given species/species group. Several desk study records and/or the Site are within known national distribution and with suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, barriers to movement and disturbance.
Low	Habitat present is of relatively poor quality for a given species/species group. Few or no desk study records. Presence cannot be discounted on the basis of national distribution, nature of surrounding habitats or habitat fragmentation.
Negligible	Habitat is either absent or of very poor quality for a particular species or species group. No desk study records. Surrounding habitat unlikely to support wider populations of a species/species group. Outside or peripheral to the known range of a species.

2.10 The findings of this assessment help establish the need for protected species surveys. Surveys may be required where a site is judged to be of suitability for a particular species/ species group even if that suitability is deemed to be Low - this is

[7] Primarily dependent on the age of the records, distance from the site and types of habitats at the site.

particularly the case where there the risk of contravening the relevant conservation legislation is unknown or cannot be quantified on the basis of the information available. However, in some cases there may be opportunities to ensure compliance with the legislation without further survey through precautionary measures prior to and during construction.

PRELIMINARY ROOST ASSESSMENT – BUILDINGS

2.11 The PRA consisted of an external inspection of all features/surfaces of the Stable Block and an internal inspection, where access allowed. The survey and assessment were undertaken by Francesca West BSc (Hons) MRes, a senior ecologist with eight years' commercial bat survey experience. Francesca was working as an accredited agent under licence number 2019-41253-CLS-CLS which allowed her to undertake the surveying of bats using artificial light (torches) and endoscopes but does not include the handling, or trapping of bats, or use of acoustic lures. Francesca was assisted by Maisie Worthington BSc (Hons), an ecologist with five years of experience.

2.12 The aim of the surveys outlined below is to establish the suitability of the Stable Block to support bat roosts. The suitability of structures to support roosting bats, ranging from negligible to the presence of a confirmed roost, is assessed using the findings of the survey and the desk study. The following criteria were used to determine the suitability of the buildings for roosting bats (taken from guidance at the time of the survey, Collins, 2016):

- Negligible – While presence cannot be absolutely discounted there were no significant visible features that could be used by bats for roosting.

- Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically; however, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or

hibernation). A tree of sufficient size and age to contain Potential Roost Features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.

- Moderate – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).

- High – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

- Confirmed roost[8] – Evidence indicates a building or other structure is used by bats, for example:

    - bats seen roosting or observed flying from a roost or freely in the habitat;

    - droppings, carcasses and feeding remains indicative of a roost; and

    - bats heard 'chattering' inside on a warm day or at dusk.

2.13 The gathered information has been used to inform whether further survey is required in the form of dusk emergence and/or dawn re-entry surveys, in line with current guidelines (Collins, 2023), to fully understand how bats are using the Site and the potential impacts of the proposals on bats, or whether an assessment can be made on the basis of the building inspection alone.

[8] Adapted from Cowan, A. (2006) Trees and Bats. Guidance Notes 1. Arboricultural Association, Cheltenham

Internal and External Inspections

2.14 The PRA was carried out on the 30th November 2022 in weather conditions of 8ºC, 2/12 Beaufort scale wind, 1/8 okta cloud cover and no rain.

2.15 The survey comprised an external inspection of the Stable Block, involving a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. Windowpanes and other external surfaces were checked for droppings or other secondary evidence. This included external features, such as soffits and fascias, roof lining, brickwork and window casements. Any features that could potentially provide access into internal areas (such as cavity walls) were noted.

2.16 The internal inspection of the Stable Block only covered the roof void above the café and kitchen. The office area of the building in the west has previously been developed so no roof void existed. The residential house in the south-east of the Site was not accessed internally. During the internal inspection, the surveyor walked through the interior of the building in logical progression. All surfaces, including floor areas, were checked for discarded feeding remains and bat droppings. A high-powered torch was shone along the interior of the roof, where appropriate, to look for bats, staining and droppings.

2.17 No internal or external assessments were made for the offices, Honey cottage and Potter's Cottage.

2.16 The survey methodology followed best practice guidelines at the time of the survey (Mitchell-Jones 2004; Collins, 2016). This guidance has now been superseded by Reason and Wray, 2023. Equipment used during the building inspection included an extendable ladder, close-focusing binoculars, a hand-held LED torch, Samsung tablet and a high-powered torch.

2.17 Finally, the buildings/structures were inspected for evidence of/potential for breeding and/or roosting birds.

SITE EVALUATION

2.18 Where sufficient baseline data are available, the Site's ecological importance has been evaluated broadly following guidance issued by CIEEM (CIEEM, 2018) which ranks the nature conservation importance of a Site according to a geographic scale of reference: international, national, regional (South-East England), metropolitan, county, vice-county or other local authority-wide area (Horsham District Council); and of importance at the zone of influence of the Site only. In evaluating the nature conservation importance of the Site, the following factors were considered: nature conservation designations; species/habitat rarity; naturalness; fragility and connectivity to other habitats. Where no importance has been assigned this is due to insufficient information.

2.19 An assessment of likely ecological impacts has been undertaken in accordance with CIEEM guidelines (CIEEM, 2018) only where clear evidence is available to substantiate and justify the findings. In the absence of such evidence, the ecological feature is merely identified as a potential constraint to development. Reference is also made to Section 6 of the Bat Mitigation Guidelines (Mitchell-Jones, 2004) and Natural England's standing advice and includes a summary of the scale of impact according to bat roost type and development effect, if known.

2.20 Where ecological constraints to development are identified, further survey requirements and/or mitigation measures that are proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development are described. In addition, in accordance with the Environment Act 2021, National Planning Policy Framework (NPPF) and local/regional planning policies, opportunities to enhance or create benefits for wildlife are provided where this is possible based on the information available to date. These measures may be appropriate for the attainment of net gains in biodiversity, although this assessment does not provide a formal measure of Biodiversity Net Gain. A formal BNG assessment will be undertaken for this Site and included within a subsequent report.

DATA VALIDITY AND LIMITATIONS

2.21 Every effort has been made to provide a comprehensive description of the Site; however, the following limitations apply to this assessment.

- The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the Site. It should not be taken as providing a full and definitive survey of any protected species group. Additional surveys may be recommended if on the basis of the preliminary assessment or during subsequent surveys it is considered reasonably likely that protected species may be present and potentially affected by the proposed development.
- The ecological evaluation is preliminary and may change subject to the findings of further ecological surveys (should these be required).
- Even where data for a particular species group are provided in the desk study, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest, the area may simply be under-recorded.
- Where only four figure grid references are provided for protected species by third parties, the precise location of species records can be difficult to determine and they could potentially be present anywhere within the given 1km x 1km square. Equally, six figure grid references are accurate to the nearest 100m only.
- The UKHabs habitat survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species.
- The surveys were undertaken at the sub-optimal time of year for plant growth, during the winter months, so it is possible that species that flower earlier in the year may have been missed. However, the data from the habitat survey is sufficient to inform a baseline assessment.
- Bats are highly mobile animals and can move roost sites both within and between years. Where surveys are not spread throughout the bat active season is possible that roost sites that are used for a limited time only could be missed,

and the detection of small numbers of crevice dwelling species from an inspection alone may remain problematic, particularly where droppings accumulate within an inaccessible void such as a cavity wall or above the roof lining. Where visible and undisturbed, however, evidence of bats inside a building is likely to be detectable throughout the year.

- Ecological survey data are typically valid for 12-18 months unless otherwise specified (CIEEM, 2019). Data used to support a bat mitigation licence application to Natural England must be from the most recent survey season; depending on the timing of the application, this may mean from the same or previous year.
- The surveyors were not able to gain access the south-east corner of the Site during the survey or undertake an internal inspection of the residential property in this area. This area is not part of the Site proposals/within Site boundary, however, as it is adjoined to the stables where the B&B will be constructed, there may be indirect impacts to any protected species, particularly bats, that may be present but this will be evaluated following the results of the further surveys. The PRA undertaken in 2017 did not identify any evidence of bats in this area (The Ecology Consultancy, 2018b).
- No internal survey of the offices was undertaken; however, the office did not contain an internal roof void, and proposals are not concerned with this building. An external inspection was still undertaken.

2.22 Despite these limitations, it is considered that this report accurately reflects the habitats present, their biodiversity importance and the potential of the Site to support protected and otherwise notable species.

3 Results and Evaluation

DESIGNATED SITES

Statutory designated nature conservation sites

3.1 The Site is not subject to any international or national statutory nature conservation designations. No internationally important sites are located within a 15km radius of the proposed development Site. No nationally designated sites are located within 2km of the Site.

3.2 See Appendix 1, Figure 2 and 3 for international and nationally designated sites map.

Non-statutory designated nature conservation sites

3.3 The Site is included within the Sussex Biodiversity Opportunity Area (BOA) strategy. A single non-statutory designated site, Old Deer Park Local Wildlife Site (LWS) is located within 2km of the Site (see Table 3.1). See Appendix 1, Figure 3 for local designated sites map.

Table 3.1: Non-Statutory Designated Site

Site Name	Distance from Site and orientation	Ecological Importance	Qualifying features/Description	Potential constraint
The St Leonards watershed Biodiversity Opportunity Area (BOA)	On site	Local	The St Leonards watershed has been recognised as a Biodiversity Opportunity Area (BOA) as it represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets. It is one of 75 such areas across Sussex. The BOA covers approximately 4057 hectares.	No

Site Name	Distance from Site and orientation	Ecological Importance	Qualifying features/Description	Potential constraint
Old Deer Park Local Wildlife Site (LWS)	300m south-east	Local	Old Deer Park is one of the best surviving relicts of St Leonard's Forest. There are ancient parkland trees with a good lichen community, dry and wet heathland, and a bog that contains an assemblage of species no longer found in any other site in West Sussex. The most important area is the southern part of the parkland where the dry and wet heath and bog communities occur. The dry heath consists of a fine area of Heather Calluna vulgaris with Bell Heather Erica cinerea, Heath Bedstraw *Galium saxatile*, Tormentil *Potentilla erecta*, Green-ribbed Sedge *Carex binervis*, Heath-grass *Danthonia decumbens* and Mat-grass *Nardus stricta*. At least ten Cladonia species of lichen have been recorded, including one extremely rare species.	No

Habitat inventories and landscape-scale conservation initiatives

Habitats of Principal Importance

3.4 There are 56 areas of Habitats of Principal Importance (HPI) located within 2km of the Site (Natural England, 2022), namely Deciduous Woodland, Ancient Woodland, Wood-Pasture and Parkland, Traditional Orchard, and Lowland Heathland. The Site sits within an area classified as Wood-pasture and Parkland and is adjacent to

Ancient Woodland. There are also over 20 ancient or veteran trees within 2km of the Site.

Wood-pasture and parkland

3.5 The Site sits within an area classified as wood-pasture and parkland HPI (Magic, 2023), and there was a small area of woodland to the east within the Site which may qualify as a feature of wood-pasture and parkland, though it is degraded.

Deciduous woodland

3.6 The east of the Site overlaps with an area designated as deciduous woodland. The woodland extends to the east and makes up a large part of the Leonardslee estate. Under current proposals, a new terrace is set to be built in this area.

Ancient woodland

3.7 80 areas of woodland within a 2km radius of the Leonardslee Lakes and Gardens estate, appear on the Ancient Woodland Inventory. The closest of these is the Ancient Replanted Woodland located approximately 30m east of the Site, and makes up a large part of the wider Leonardslee Lakes and Gardens Estate.

DATA RETURN FOR BAT SPECIES

3.8 The data search returned 62 records of bats from within the past ten years from at least eight species and two species groups. Of these records, 16 were roosts and the remainder were field records. 13 roosts were recorded within 2km of the Site in the last ten years. Some of which were previously recorded within Leonardslee House, or adjacent buildings such as the Stable Block. There was also one historic record of a hibernation roost from 1992, within the Ice-House associated with Leonardslee

House. Two historic mitigation licences were found within a 2km radius of the site. A summary of the results is presented in Tables 3.2 and 3.3.

Table 3.2: Summary of data search results

Species	Distance & Orientation	Date of most recent record	Description
Plecotus auritus Brown Long-eared Bat	70m south	16/11/2017	The Manor House, Leonardslee Estate. Building inspection, unspecified roost
Myotis nattereri Natterer's Bat	105m southwest	15/02/1992	Ice-house, Leonardslee Gardens, Brighton Road, Lower Beeding. 1 bat present during hibernation survey
Plecotus auritus Brown Long-eared Bat	On site	16/11/2017	The Stable Block, Leonardslee Estate, Building inspection, unspecified roost
Plecotus auritus Brown Long-eared Bat	75m north-west	20/06/2019	Leonardslee House & Gardens. One roosting in the building.
Plecotus auritus Brown Long-eared Bat	75m north-west	05/09/2019	Leonardslee House & Gardens. One bat emerged from building, unspecified roost
Plecotus auritus Brown Long-eared Bat	75m north-west	24/09/2019	Leonardslee House & Gardens. One bat emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	75m north-west	25/09/2019	Leonardslee House & Gardens, one bat emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	75m north-west	24/09/2019	Leonardslee House & Gardens, 1 bat emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	75m north-west	05/09/2019	Leonardslee House & Gardens, four bats emerged from building, unspecified roost
Pipistrellus pipistrellus Common Pipistrelle	75m north-west	24/09/2019	Leonardslee House & Gardens, two bats emerged from building, unspecified roost
Pipistrellus pipistrellus Common Pipistrelle	75m north-west	05/09/2019	Leonardslee House & Gardens, two bats emerged from building, unspecified roost

Pipistrellus pygmaeus Soprano Pipistrelle	760m south	02/06/2020 - 04/08/2020	Maternity roost, surveyed over a number of dusk/dawns in 2020 plus hand netting in 2019. 2020 peak count of 286 bats.
Plecotus sp. Long-eared Bat species	500m southwest	13/03/2020	Maternity Roost
Pipistrellus pipistrellus Common Pipistrelle	1.9km north-east	01/07/2016	Maternity roost

Table 3.3: Bat mitigation licences within 2km of the site boundary

Licence Number	Distance & Orientation	Notes
EPSM2010-1637	1.6km south-west	Brown long eared bat, common pipistrelle, soprano pipistrelle Licence was valid 10/03/2010 to 30/11/2010
2019-43870-EPS-MIT	1.6km south-east	Brown long eared bat, common pipistrelle, soprano pipistrelle, whiskered bat Licence was valid 03/02/2020 to 30/01/2030

UKHABS HABITAT SURVEY

Site character

3.9 The Site sits centrally within the Leonardslee Lakes and Gardens estate, comprising a sensitively managed Grade II listed House and garden which consists of buildings, lakes, ancient and semi-natural woodland and ancient replanted woodland. Leonardslee Lakes and Gardens sits within a rural landscape and is open to the public. The gardens are carefully managed and there is a high footfall around the estate, as the gardens are open to visitors year-round. The Site consists of a U-shaped former carriage house and stables that is currently in use as a café with associated outdoor seating. Offices also occupy the western area, and a residential property occupies the south-eastern area of the building.

3.10 UKHabs types are mapped in Appendix 1, Figure 4, with habitat areas provided in Table 3.2 along with an assessment of habitat condition in accordance with the Biodiversity Net Gain 3.1 Technical Supplement which was the relevant metric at the time of the survey (Panks *et al,*. 2022).

3.11 A description of dominant and notable species and the composition of each habitat is provided below, with a species list (including all scientific names) provided in Appendix 2. Photographs are located in Appendix 3. The habitat condition forms are presented in full in Appendix 5.

Table 3.2: UK Habitat Areas

UKHab Primary Habitat (Area)	UKHab Secondary codes	Condition	Extent (Ha)
u1b5 Building	N/A	N/A	0.042
u1b Developed land; sealed surface	1140 Ground Level Planters	N/A	0.036
u1 Built-up areas and gardens	1150 Flower bed 1160 Introduced Shrub 1170 Tree	N/A	0.015
w1g Other woodland; broadleaved	1160 Introduced Shrub 1170 Tree	Poor	0.019
		Total	0.112
UKHab Primary Habitat (Linear)	UKHab Secondary codes	Condition	Extent (m)
h2b Other Hedgerow	N/A	Poor	16.87

Habitat Description

u1 Built-up areas and gardens (1150 Flowerbed; 1160 Introduced Shrub; 1170 Tree)

3.12 There are three areas of garden on Site that are highly managed and planted with ornamental species. To the south of the Site there is section of flower bed with euphorbia, rhododendron, sedum and hydrangea, surrounded by a laylandii hedge and hardstanding. In the west of the Site, there are some introduced shrubs and trees planted between the road and the building, as well as a flower bed with a fig tree *Ficus carica*.

u1b Developed land; sealed surface (1140 Ground level planters)

3.13 There is an area of hardstanding that makes up the courtyard between the two wings of the building, as well as hardstanding to the north and west of the building that provides assess around the Site. Raised planters and hanging baskets are

provided within the courtyard, planted with ornamental species such as Euphorbia and Mullein. There is no important habitat on this area of hardstanding.

ub15 Building

3.14 The Site contained a U-shape former carriage house, utilised as a café for the Leonardslee Lakes and Gardens estate, with offices to the west and a residential property to the south-east. The building is a mix of adjoining single story and two-story sections. The building on Site was subject to an internal and external inspection to look for presence, evidence and/or any features with suitability to support roosting bats and breeding birds.

3.15 Full results of the Preliminary Roost Assessment (PRA) survey of the building are detailed in Table 3.4 below, with referenced photographs provided in Appendix 3.

h2b Other Hedgerow

3.16 There is a small single species leylandii hedge that surrounds the flowerbed in the south of the Site and separates it from the residential garden and path leading away from the Site. The hedgerow is approximately 12m long with a height of approximately 1.2m.

w1g Other woodland; broadleaved

3.17 In the east of the Site, the Site boundary extends into an area of broadleaved woodland. This area of woodland separated the Site from the Ancient Replanted Woodland, which is situated approximately 30m east of the building (Natural England, 2022).

3.18 The woodland within the Site boundary is comprised mainly of Rhododendron and laurel with an understorey composed of ivy, bramble, sheep sorrell, herb Robert, St John's wort.

PROTECTED, NOTABLE AND INVASIVE SPECIES ASSESSMENT

3.19 The potential for the Site to support protected and/or notable species has been assessed using criteria provided in Table 2.2 and is based on the results of the desk study and observations made during the survey of habitats at the Site. Those legally protected species not referred to in Table 3.3 and 3.4 below have been scoped out as it is considered that the Site does not contain habitats suitable to support them.

3.20 Bat DNA Genotyping results are set out in Appendix 4. Key pieces of statute are summarised in Section 1 and set out in greater detail in Appendix 6.

Table 3.3. Protected, notable and invasive species assessment

Ecological feature	Status[9][10]	Likelihood of occurrence	Ecological importance	Potential constraint
Bats: Roosting Foraging/commuting	HR WCA S5	**CONFIRMED (Roosting):** The data search concluded that 8 species of bats have been recorded within 2km of the Site in the last 10 years including, Serotine *Eptesicus serotinus*, Myotis *sp.*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and Long-eared bat sp. *Plecotu sp.* and brown long-eared bat *Plecotus auritus.* Three maternity roosts are located within 2km of the Site, the closest being 750 meters south of the Site, with a peak count of 286 Soprano pipistrelles counted in 2020 (SxBRC, 2022). Surveys in 2017 undertaken by The Ecology Consultancy identified bat droppings in the roof void that were identified as brown long-eared bat, and confirmed as a maternity roost (The Ecology Consultancy, 2018b). A Preliminary Roost Assessment (PRA) of the Stable Block (Table 3.4) was undertaken alongside the PEA assessment. Within the roof void, scattered as well as piles of <100	Unknown until further surveys undertaken	**Roosting:** Current proposals are concerned with refurbishment of the building where bats are confirmed to be roosting. Further survey is required. **Commuting:** No further surveys are necessary, but a sensitive lighting strategy is recommended.

[9] The following abbreviations have been used to signify the legislation afforded different species: HR = Conservation of Habitats and Species Regulations 2017 (as amended); WCA S1 = Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); WCA S5 = Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); WCA S9 = Schedule 9 of the Wildlife and Countryside Act 1981 (as amended); PBA = Protection of Badgers Act 1992.

[10] The following abbreviations have been used to signify the policy of conservation assessments applying to notable species: SPI = Species of Principal Importance under the NERC Act 2006; LBAP = Local Biodiversity Action Plan species; BoCC = Birds of Conservation Concern - amber list / red list (Stanbury *et al.*, 2021); and/or RD/NN = red data book/nationally notable species (JNCC, undated).

		dropping were found, confirmed to be Brown long-eared bats by DNA analysis (Appendix 4). There are no trees within the Site boundary that would be considered suitable to support roosting bats due to the species composition of the trees and immaturity. However, the wider context of the location within the landscaped gardens and woodland, there are likely to be many trees of a suitable age and species with features suitable to support roosting bats. **HIGH (Commuting):** The Site itself has minimal foraging habitat with a lack of green space and potential illumination from the café at dusk. However, it contains a confirmed roost, and the woodland to the east is directly linked to the wider landscaped garden, woodland and lakes. As such, the site has High suitability to support commuting bats from the roost into the wider landscape. **Bats are present within the Site and as such they are considered further in Section 4 of this report.**		
Hazel dormouse	HR WCA S5	**MODERATE:** There are three records of dormouse within 2km of the Site, with the closest record approximately 100m east in the woodland between the Site and Engine Pond. The Site has linking green connectivity with this area of woodland. The majority of the Site comprised the Stable Block building and associated hard standing used as outdoor seating area. There is a small leylandii hedge that acts as a boundary separating the garden and the path. This type of hedgerow has low suitability for foraging or nest-building dormice and provides habitat for dispersal.	Likely to be at the Local level if present due to the small-scale and low quality of the habitats on Site.	No further survey, but a precautionary method of works is required.

		The woodland to the east of the Site is considered to have moderate suitability to support foraging and dispersing hazel dormice with connectivity to the woodland within the Leonardslee' Lakes and Gardens estate where dormice have previously been recorded. However, this woodland has low suitability for nest-building. **Dormice may be present on Site and as such they are considered further in Section 4 of this report.**		
Great crested newt	HR WCA S5	**LOW:** There are 19 records of Great Crested Newts within 2km of the Site from the last 10 years. Historically, great crested newt surveys (HSI, eDNA and presence/ absence surveys) of 12 ponds undertaken by The Ecology Consultancy in 2018 (The Ecology Consultancy, 2018a) found a peak count of 1 adult male and a positive eDNA of a pond within the greenhouse of the visitors' centre. However, this pond was removed in 2022 and no longer exists. No other ponds had any evidence of great crested newts. There are no other records of great crested newts within 500 meters of the site. No ponds are present onsite, with the majority of the Site comprised of hard standing and buildings. The flower beds could provide limited terrestrial habitat, but they are highly managed, limited in extent and isolated by hard standing, and therefore unlikely to provide suitable terrestrial habitat. The woodland in the east is unlikely to support great crested newts during their terrestrial phase, as there is a lack of records in the area. At this stage, it is unknown exactly how the proposed development may affect the	Site	No habitats with suitability to support great crested newts are present within the Site boundary. No further survey required.

		woodland in the construction and operational phase, therefore a precautional approach will be recommended. **There is low potential that great crested newt may occur at the site, and as such they are considered further in this report.**		
Birds: Breeding Wintering:	WCA Sections 1-8	**LOW:** The Site overlaps with woodland that extends to the east, and provides suitable habitat for a range of common breeding bird species such as blackbird, wren, robin and dunnock which were all recorded within the data search. The building may be suitable for house martin or sparrows, but no evidence was observed during the internal and external inspection of the building. The building on Site has a chimney that may provide suitable nesting habitat for Jackdaws. **NEGLIGIBLE:** The Site is limited in size and suitable habitat and does not provide opportunities for overwintering bird species. **Breeding birds may be present on Site and as such they are considered further in Section 4 of this report.**	Site	The proposals are for modifications to the Building only. Measures should be taken to avoid any impacts to natural habitats such as the woodland to the east
Birds	WCA S1	**NEGLIGIBLE:** The desk study found records of 14 WCA Schedule 1 species within 2km of the Site from the last ten years. This includes four species found within Leonardslee Lakes and Gardens: kingfisher *(Alcedo atthis),* hobby *(Falco subbuteo),* crossbill *(Loxia curvirostra)* and firecrest *(Regulus ignicapilla).* There were also two records of birds classed as confidential by the Sussex Ornithological Society (SOS). The building contains a roof void but does not provide any access points large enough for barn owl.	N/A	The proposals are for modifications to the Building only. Measures should be taken to avoid any impacts to natural habitats such as the woodland to the east

		The Site consists mainly of a building with associates hard standing. With the availability of suitable habitat in the vicinity, it is unlikely that Schedule 1 species will occupy the woodland within the Site boundary to the east. **There is negligible potential that Schedule 1 birds may occur at the Site, and as such they are not considered further in this report.**		
Plants	WCA S8	**NEGLIGIBLE:** There are two records of Schedule 8 plant species within 2km of the Site and within the last ten years, with the closest record being Bluebell within Leonardslee Lakes and Gardens. No Schedule 8 plant species were observed during the Site visit, with the majority of the Site comprising of buildings and hard standing, with areas of planted flowerbeds. It is considered unlikely that any protected plant species are present. **There is negligible potential that Schedule 8 plants may occur at the Site, and as such they are not considered further in this report.**	N/A	The proposals are not due to impact and notable plant species. Notable plants are not considered a constraint to the proposed works.
Reptiles	WCA S5	**LOW:** There is only one reptile record within the last ten years of a slow worm approximately 0.9km south of the Site. The majority of the Site is comprised of the Stable Block building and associated hard standing used as outdoor seating area. The garden area and flower bed in the south-east of the Site are the only parts of the Site that could potentially provide any suitable habitat for widespread reptile species. However, due to the highly managed and isolated nature of these spaces, as well as the presence of	Likely to be at the Site level only if present due to the small-scale of the habitats on Site.	Limited habitat with suitability to support widespread common reptile species are present within the Site boundary. No further survey required.

		human activity around the Site, the Site is unlikely to support common species of reptiles. **Common widespread reptile species may be present on Site and as such they are considered further in Section 4 of this report.**		
Invasive plants	WCA S9	**PRESENT:** The desk study found 11 records of Invasive Non-Native Species (INNS) within 2km of the Site from the last ten years. Some, including montbretia and cherry laurel, could successfully germinate and become established on Site. Rhododendron sp. was present on Site as well as in the wider area as part of ornamental gardens. *Rhododendron ponticum* is listed under Schedule 9 of the Wildlife and Countryside Act as an Invasive Non-Native Species. It is assumed that the Rhododendron present on Site is *Rhododendron ponticum*, and precautionary methods are advised. **It is likely that the invasive species will be disturbed or removed during the works and are therefore considered further in Section 4 of this report.**	N/A	No further survey required. Appropriate measures should be taken to ensure any invasive species are contained during works to avoid spreading.
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

		[redacted]		
Hedgehog	S41 NERC	**LOW:** There are no records for Hedgehog within 2km of the Site within the past 10 years. No evidence of hedgehog was noted during the Site visit. Very little foraging habitat exists due to the high proportion of ornamental plant species and hardstanding. **Although there is a low chance that hedgehogs may be present within the Site boundaries and within habitats immediately surrounding the Site, the proposals are unlikely to result in any impacts to hedgehogs and/or local hedgehog populations, therefore a precautionary approach to development with regards to hedgehogs is recommended further in this report.**	Likely to be at the Site level only as there are limited opportunities for hedgehogs on Site. The proposals are not likely to impact any habitat suitable habitat for hedgehogs.	No further survey or mitigation required, however, a precautionary approach to development is recommended.

Table 3.4 Preliminary Bat Roost Assessment

Building/ Structure	Description	Potential Roost Features (PRFs)	Factors influencing suitability for bats	Building suitability	Evaluation
Stable Block	A complex of interlinked buildings with one, two and three storeys. The whole complex had sandstone structure with pitched slate roof and was set in a "U" shape around a central courtyard. Built during the 1850s and converted to a restaurant in 1988, the complex was previously used as the carriage house and stables associated with the main house. (Historic England, 2023). In the south-east section of the building is a two-storey residential house with a chimney on the northern elevation and a conservatory on the southern elevation. A single-story structure contains the café and kitchen, as well as the two roof voids in the east and north. A timber framed clock tower is positioned in north of the single-story section, and a glass conservatory extends into the courtyard. Internally, this section is utilised as a café, with associated kitchen and seating area. During the PRA, two of the internal roof voids were accessed. The central void (See Appendix 1, Figure 5 for location) above the café and kitchen had a breeze block and brick construction, with timber	Loose bitumen felt within the roof void Gaps under the lead flashing at the base of the clock tower. Gaps under the eaves of the northern elevation. Gaps under the central ridge tiles. Several lifted tiles throughout the building	Presence of two distinct piles (containing ~100-200) of bat droppings centred below the clock tower and the central ridge line, as well as 20 – 30 droppings caught on the western wall of the central void. One distinct pile of droppings was present within the eastern void, as well as scattered droppings recorded within the accessible areas of the void. Droppings confirmed a Brown long-eared bat by DNA analysis (Appendix 4). Rural setting and surrounding woodland habitats present providing good	Confirmed roost – Brown long-eared species within void during PRA.	The Stable Block is a confirmed roost for Brown long-eared bat, with large piles of droppings recorded below the clock tower in the centre and scattered droppings in the eastern roof void. Direct impacts proposed to the building. Further surveys required in order to characterise the roost and gather sufficient information to apply for a Mitigation Licence from Natural England. Further surveys to comprise a total of three dusk emergence and or two dusk

Table 3.4 Preliminary Bat Roost Assessment

Building/ Structure	Description	Potential Roost Features (PRFs)	Factors influencing suitability for bats	Building suitability	Evaluation
	joists and chipboard flooring. Two Velux windows were on the north orientation, allowing light into the void. The apex was approximately 2.5m high. The roof was lined with bitumen felt and fibrous felt. Slate roof unlined to the east. The temperature was cool, with some light egress seen at the eaves. Scattered droppings throughout with a distinct pile below the clock tower, as well as caught on the western wall. The eastern void above the seating area of the café is connected to the central void. Approximately 1.7m to the apex, Timber beams and timber purlins. Breeze block elevation to the south, chipboard flooring, water tank and storage. Scattered bat droppings on the floor, as well as three distinct piles. Artex swirl ceiling in café.		roosting, foraging, and commuting resources for bats locally. Presence of numerous features with suitability for both crevice-dwelling species and void roosting species of bat, including potential for features to support large numbers of bats. A Preliminary Roost Assessment conducted by The Ecology Consultancy in 2017 (The Ecology Consultancy, 2018b) also found the presence of Brown long-eared bats within the same location within the roof void.		emergences and one dawn re-entry survey.

NATURE CONSERVATION EVALUATION

3.21 The Site is included within The St Leonards watershed Biodiversity Opportunity Area the Sussex Biodiversity Opportunity Area (BOA) as it represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets. It is one of 75 such areas across Sussex.

3.22 The Site is situated approximately 200m northwest of Old Deer Park Local Wildlife Site (LWS), an area of nature conservation importance. The habitats that comprise the LWS are not found on Site, and it is considered that the development proposals will not impact upon the local LWS.

3.23 The Site, as well as the rest of Leonardslee Lakes and Gardens, is classified as Wood-Pasture and Parkland HPI and is likely to contain relics of the former St. Leonards Forest. Wood-pasture and parkland has a long history of continued management, is rare across Sussex and are mosaic habitats valued for their old trees and the wildlife they support.

3.24 The habitats on the Site were suitable for a range of noteworthy species, including Species of Principal Importance, as reported in the desk study or recorded during the survey, as follows:

- Roosting and foraging/ commuting bats;
- Foraging and dispersing Hazel dormice;
- Dispersing and sheltering Great crested newts;
- Nesting and foraging common bird species;
- Dispersing and sheltering slow worm and other widespread species of reptile;
- Invasive plant species;
- [redacted],
- Foraging and dispersing Hedgehog.

3.25 The habitats at the Site and populations of the above species are likely to be of importance within the immediate vicinity of the Site only. It is unlikely that the Site would support rare species, or diverse assemblages or large populations of any noteworthy species.

3.26 Records for at least eight species of bats were provided in the desk study. The PRA survey also recorded Brown long-eared bat droppings within both roof voids and numerous features with suitability to support roosting bats within the stable block, and the proposals will result in direct impacts to at least one bat roost. Due to the legal protection afforded to bats, further surveys are required in order to identify and characterise the roosts, and the works will need to proceed under a Mitigation Licence from Natural England. It is not possible to confirm the importance of bat populations that may be present at the Site until further surveys have been undertaken. Recommendations for further survey are provided in Section 4.

4 Recommendations

4.1 This section summarises the potential impacts on habitats and notable species that may be present at this Site. It also sets out the recommendations for further survey and mitigation where required. The impact assessment is preliminary and further detailed assessment and surveys will be required to assess impacts and design suitable mitigation, where appropriate.

FURTHER SURVEY AND MITIGATION

4.2 For each constraint identified as being of importance at greater than the Site level, all mitigation options provided follow the established Mitigation Hierarchy as set out in Section 5.2 of BS42020:2013. This seeks as a preference to avoid impacts then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. Features deemed important at the Site level only are considered here only where further survey and/or mitigation is necessary to ensure legal compliance.

4.3 In the absence of mitigation, the following key ecological constraints have been identified:

- Roosting bats have been confirmed on Site and the Site is suitable to support foraging and commuting bat species – further surveys are required to determine how bats are using the habitats on Site;
- Habitats suitable for foraging and dispersing hazel dormice are present – no further surveys are required but consideration should be given to the timings of works;
- Habitats suitable for breeding birds were present and may be impacted by the proposals. No further surveys are required but a precautionary approach is recommended for any vegetation removal including sensitive timings or a pre-works check up to 48 hours prior to works should works be undertaken in the breeding bird season;

- Rhododendron, an invasive species, was present on Site during the survey. This plant will be affected by the works, therefore appropriate site management and waste disposal will be required;
- Low quality habitat suitable for foraging, sheltering and dispersing reptiles and amphibians was present on Site. Surveys are not necessary, but efforts to dissuade reptiles and amphibians from using these habitats prior to construction should be made; and,
- [redacted]

STATUTORY AND NON-STATUTORY SITES

4.4 The Site does not lie within any international statutory or non-statutory nature conservation designations. However, the Site is included within the Sussex Biodiversity Opportunity Area (BOA). The Site is small in scale and does not include any of the BAP habitats or BAP species for which the area is designated for.

4.5 The proposals comprise modifications to the current building, and a new terrace to extend into the woodland to the east. Some temporary impacts are likely to occur during the construction phase to additional habitats as a result of access requirements and movement of materials/plant. It is considered highly unlikely that the works will result in any impacts to any statutory or non-statutory sites within proximity to the site.

HABITATS

4.6 Working under the principle of 'net-gain' as supported by national planning policy, any habitats removed should be compensated for. If proposals are concerned with the loss of areas of woodland, consideration should be given to the enhancement of existing woodland. Consideration should be given to any tree removal and planting. If replacement trees are to be planted, they should be native species that

are local to the area, which are more likely to support a range species including birds and invertebrates.

Wood-Pasture and Parkland

4.7 The Natural Environment and Rural Communities Act 2006 requires that HPIs are regarded as a material consideration in determining planning applications. All HPIs are by default also Sussex BAP habitats. It is recommended that all HPIs within the site are retained where possible.

4.8 The Site is situated with an area designated as 'Wood-Pasture and Parkland' Habitat of Principal Importance. Wood-pasture and parkland are mosaic habitats valued for their trees, especially veteran and ancient trees, and the plants and animals that they support. Grazing animals are fundamental to the existence of this habitat (Brig, 2011).

4.9 The majority of the Site comprises building and associated hard standing. However, the Site does contain an area of woodland to the east, which though degraded, potentially qualifies as a feature of wood-pasture and parkland. A small part of this woodland is proposed to be removed to facilitate the building of a terrace. Scrub will be removed, but the proposals seek to retain and protect the trees. It is recommended that an arboriculturist is consulted to provide further information on the trees present adjacent to the proposed scrub removal.

4.10 Given that the on-site woodland is a potentially degraded feature of wood-pasture and parkland, it is recommended that this habitat is compensated for if removal is unavoidable. It is recommended that the woodland is managed to enhance it, including removal of rhododendron, opening the woodland to allow more of a woody understorey, allowing deadwood to remain in the woodland where safe to do so, and protection from grazing. This management approach would allow the woodland to return to being a quality feature of wood-pasture and parkland in the future.

4.11 Potential impacts should be mitigated with a Construction Environment Management Plan (CEMP). Potentially adverse impacts during the construction phase include but are not limited to pollution events, surface runoff, spills or changes in hydrological conditions. Best environmental practice measures which should be implemented where appropriate include:

- The provision of a buffer strip of semi-natural vegetation between woodland and landscaping to allow ground flora to grow.
- Avoidance of lighting woodland. Mounted lights should not light up the woodland.
- The protection of retained trees in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations.
- In conjunction with tree protection (above), the erection of Heras fencing around the development footprint boundary to protect habitats and restrict vehicle and pedestrian access; and
- Appropriate storage of fuels and chemicals to minimise the risk of accidental spillage. Sources of best construction practice and environmental management include CIRIA guidance (Connolly and Charles, 2005) and Defra/Environment including the Environmental Damage (Prevention and Remediation) Regulations 2009.

4.12 Current proposals appear to retain all trees on Site, but any trees that require removal should be replaced at a ratio of at least 1:1, or equivalent lengths, using native specimens or like-for-like species. Replacement planting should include the use of nectar-rich plants and berry and nut producing trees that will increase the foraging habitat on Site for birds and mammals, whilst continuing to accommodate those already using habitats on Site.

4.13 Native plants with local provenance are encouraged, as well as avoidance of the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Deciduous woodland

4.14 The proposals include an extension terrace to the east, which overlaps with an area designated as Deciduous woodland. As part of the current proposals, an area of woodland would be lost, with shrubs removed to facilitate the terrace, but the proposals will seek to retain and protect the trees.

4.15 Loss of habitat should be avoided. Where direct impacts cannot be avoided, like for like habitat replacement and enhancement should be undertaken. It is recommended that an arboriculturist is consulted to provide further information on the potential impact on the adjacent trees. Sensitive lighting should also be imposed to avoid illuminating the adjacent woodland at night.

Ancient woodland

4.16 Ancient woodland is regarded as irreplaceable habitat and the National Planning Policy Framework (2023) states that planning permission should be refused for development that results in the loss or deterioration of Ancient Woodland unless the need for, and benefits of, the development clearly outweigh the loss.

4.17 All areas of Ancient Woodland should be protected during works. In line with Natural England's Standing Advice (2017) on Ancient Woodland, a minimum 15m buffer zone of semi-natural habitat should be provided between the areas of development and woodland. The Site is situated approximately 30m west of Ancient Replanted Woodland, with an area of mixed woodland separating the Site from the Ancient Replanted Woodland.

4.18 Any new lighting should be directed away from surrounding woodland and Ancient Replanted Woodland and avoid night-time lighting of these areas, to minimise impacts on species such as birds and bats.

4.19 The proposed works at the Site could impact the ancient woodland through dust and particulates, especially since there are also proposals for works to an adjacent

Site (Temple, 2023). Best working practices should be applied to any construction works including the control of dust and particulates.

Lowland heathland

4.20 The Site is situated approximately 280 meters west of the area of Lowland Heathland. The current proposals will make modifications to the existing building and does not overlap with the areas of Lowland Heathland. The distance between the Lowland Heathland and the Site mean it is unlikely that the Lowland Heathland will be affected by the proposals.

Traditional Orchard

4.21 There are three areas of Traditional Orchard within 2km of the site, with the closest situated approximately 980m south of the site. The current proposals include the modification to the existing Stable Block and does not overlap with the areas of Traditional Orchard. The distance between the Traditional Orchard and the Site mean it is unlikely that the Traditional Orchard will be affected by the proposals.

BATS

4.22 All British species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). Under this legislation it is an offence to deliberately capture, kill, disturb and damage or destroy a bat roost. Some species of bat are also Species of Principal Importance and Sussex BAP species.

4.23 The stable block contained a confirmed bat roost for brown long-eared bats. Bat droppings were recorded within the roof voids above the kitchen and café, and were confirmed as Brown long-eared through DNA analysis. This is consistent with the previous findings of Brown long-eared droppings in the roof void in 2017 (The Ecology Consultancy, 2018b).

4.24 Additional features with suitability were identified during the survey and the building is considered suitable to support both summer roosting and hibernating

bats. The building is due to be directly impacted under the current proposals, therefore further survey comprising roost characterisation surveys are required, and the works will need to proceed under a Mitigation Licence from Natural England. Three surveys are required for buildings with Confirmed bat roosts. Surveys should be spread across the bat active season (May-October inclusive).

4.25 If any trees need to be removed to facilitate the development, a Ground Level Roost Assessment will need to be undertaken.

4.26 A sensitive lighting strategy is recommended, covering construction and post-development with respect to foraging and commuting bats. This could include specifications for downward facing lights or the inclusion of baffles with light spillage kept to a minimum. During the construction phase artificial lighting should only be utilised where necessary for health and safety reasons with lighting only used for the period of time for which it is required (Jones, 2000). It is recommended that a lighting strategy is devised to minimise impacts on the surrounding woodland that includes the following accepted best practice measures (Fure, 2006; Institute of Lighting Engineers, 2009; Institution of Lighting Professionals, 2023):

- The level of artificial lighting should be kept to a minimum;
- Where this does not conflict with health and safety and/or security requirements, the Site should be kept dark during peak bat activity periods (0 to 1.5 hours after sunset and 1.5 hours before sunrise);
- Lighting that is required for security or safety reasons should use a lamp of no greater than 2000 lumens (150 Watts) and should comprise sensor activated lamps;
- LED or low pressure sodium lights are a preferred option to high pressure sodium or mercury lamps;
- Warm-white (i.e. long wavelength) should be used over blue-white (i.e. short wavelength) lights as the latter have a significant negative impact on bats (Stone, 2013);

- Lighting should be directed to where it is needed with minimal light spillage. This can be achieved by limiting the height of the lighting columns and by using as steep a downward angle as possible and/or a shield or hood that directs the light below the horizontal plane; and
- Artificial lighting should not directly illuminate any habitats of value to commuting/foraging bats such as the grassland and woodland to the west or trees assessed as having suitability for roosting bats.

4.27 The High Weald AONB Management Plan (2019) propose that public bodies and others 'follow the Institute for Lighting Professionals guidance; promote information on dark sky-friendly lighting; install outside lighting only when needed and use dark sky-friendly lighting' (objective OQ4).

BREEDING BIRDS

4.28 All wild birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended). Some birds, known as 'schedule 1 birds', have extra legal protection. For these bird species it's also an offence to disturb them while they're nesting, building a nest, in or near a nest that contains their young and disturb their dependent young, either intentionally or by not taking enough care. The Site is likely to support common species of breeding bird.

4.29 The Stable Block contains a roof void but does not provide any access points large enough for barn owl. The building may be suitable for house martin beneath the eaves, but no evidence was observed during the internal and external inspection of the building. The chimney also provides suitable habitat for Jackdaws to potentially nest in.

4.30 Where possible any works to The Stable Block should take place outside of the main breeding bird season (February-August inclusive). If this is not possible, then a nesting bird check of the building should be carried out by a suitably qualified ecologist no longer than 48 hours prior to works commencing. Any active birds'

nests should be left in situ and a suitable buffer established until all the chicks have fledged, or the breeding attempt considered over.

HAZEL DORMOUSE

4.31 Hazel dormice, their breeding sites, and their resting places are protected by law under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

4.32 Dormouse were found to be present within 100m of the Site within the last five years. The leylandii hedge and woodland to the east within the Site have low suitability to support nest-building. These habitats also have suitability for dispersing dormice, especially the woodland to the eastern side of the Site, which is connected to an area of Ancient Replanted Woodland.

4.33 The woodland edge that overlaps with the Site boundary has little understory and is predominantly Rhododendron. As such, it has moderate suitablility for dispersing dormice due to connectivity to a historical record but has low potential for foraging and nest-building dormice. In addition to this, the amount of vegetation removed according to current plans is small. For these reasons, the likelihood of encountering a dormouse is considered to be low, so it is not considered necessary to carry out presence/ likely absence surveys for hazel dormice at the Site.

4.34 As the proposals extend into the woodland to the east where the new proposed terrace will be built, a small area of woodland will be removed (with no trees to be removed, only scrub). Vegetation removal should be undertaken under a precautionary method of works, outside of the hibernation season, under the supervision of an ecologist.

4.35 Should any dormouse nests or individual dormice be found during clearance, works should stop and the ECoW consulted for advice. A mitigation licence from Natural England may be required to continue the work.

GREAT CRESTED NEWTS

4.36 Great crested newts, their breeding sites, and their resting places are protected by law under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

4.37 As the Site has no aquatic habitat but some low-quality terrestrial habitat for dispersing great crested newts, a precautionary approach to vegetation clearance and sensitive timings for the works are recommended. Vegetation clearance should be completed within February to October inclusive when temperatures are >5°C, and should avoid prolonged periods of hot dry weather when newt activity is reduced. A suitable ecologist should also be present.

REPTILES

4.38 All species of reptile are protected from killing or injury under the Wildlife and Countryside Act 1981 (as amended).

4.39 The Site contains limited habitat suitable to support common and widespread reptile species, with some connectivity to suitable reptile habitats in the surrounding area. The data search returned only one record for slow-worm and one record for common lizard within 2km of the Site within the past ten years. Reptiles are unlikely to be present on Site, with the only suitable habitat the flowerbeds and woodland in the east. The woodland has limited understory and ground flora within the Site boundary.

4.40 The proposals will include the removal of some woodland that is suitable reptile habitat to the east of the Site. Reptiles are considered likely to be absent from the area surrounding the Stable Block. No further surveys are required in order to inform the proposals, its habitat removal should be undertaken within the reptile active period (March to October), under the supervision of an ecologist.

BADGERS

4.41 Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to wilfully kill, injure or take (or, in England and Wales, to attempt to kill, injure or take) a badger or to interfere with a badger sett (damage, destroy, obstruct access to or disturb a badger whilst occupying a sett).

4.42 [redacted]

- [redacted]
- [redacted]
- any trenches should be covered overnight, or include a means of escape for any animals falling in (such as a ramp);
- any open or exposed pipe work should be capped to prevent animals from gaining access; and
- should any mammal holes be uncovered during Site clearance, works should cease immediately, and these should be inspected by a qualified ecologist.

SPECIES OF PRINCIPAL IMPORTANCE

Hedgehog

4.43 Hedgehogs are a Species of Principal Importance, making them a material consideration for planning, and as such should be protected as part of the development and habitats enhanced for this species. The Hedgehog is protected under Schedule 6 of the Wildlife and Countryside Act 1981, making it illegal to kill or capture them using certain methods.

4.44 Recommendations included for [redacted] above, will ensure this species is protected during construction works.

OTHER PROTECTED SPECIES

4.45 Works must stop immediately, and advice sought from a suitably qualified ecologist on how to proceed in the unlikely event that any protected species are found during Site clearance or construction.

4.46 All mammals are afforded protection under the Wild Mammals (Protection) Act 1996, which make it an offence to cause unnecessary suffering to wild mammals.

ENVIRONMENTAL BEST PRACTICE

4.47 Whilst construction is taking place good site practice must take place to avoid any negative impacts through increased noise, lighting, sound, vibration, dust or particles. Best environmental practice measures which should be implemented where appropriate to include:

- Appropriate storage of fuels and chemicals to minimise the risk of accidental spillage. Sources of best construction practice and environmental management include CIRIA guidance (Connolly and Charles, 2005) and various Defra/ Environment Agency guidelines (2016). This guidance relates to various pieces of legislation including the Environmental Damage (Prevention and Remediation) Regulations 2009.
- The protection of retained trees in accordance with *BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations.*
- All materials should be stored on hardstanding. Where materials cannot be stored on hardstanding, methods for ground protection should be considered and put in place to prevent damage to the root system of any retained trees within the development footprint or wider Leonardslee area. This would also protect against any damage caused by the tracking of heavy machinery during construction works.

- All individuals on site should perform frequent checks for plant material on shoes, vehicle tracks and tyres, and equipment to prevent transfer of invasive plant material across the wider Leonardslee Lakes and Gardens Estate and beyond the ownership boundary.
- Where the Site is adjacent to woodland, Haras fencing can be installed to protect the surrounding areas of woodland.

INVASIVE SPECIES MANAGEMENT

4.48 *Rhododendron ponticum* is an invasive non-native species and has been found on Site and within Leonardslee Lakes and Gardens. It is listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales therefore, it is also an offence to plant or otherwise cause to grow these species in the wild. If this plant is to be affected during works then appropriate site management and waste disposal will be required. Environmental management guidance to prevent the spread of invasive plant species is available on the Government website (Natural England, Defra & Environment Agency, 2016).

4.49 *Rhododendron ponticum* is an established non-native invasive species within the UK. It is a shrub that spreads through prolific seeding. Its thick layering of branches creates a dense canopy that shuts out most light and kills most native species.

4.50 If these species are to be disturbed during Site enhancement works then appropriate Site management and waste disposal will be required. Environmental management guidance to prevent the spread of invasive plant species is available on the Government website (Natural England, Defra & Environment Agency, 2016).

4.51 Mechanical methods of control are advised, and these comprise pulling young seedlings and excavating the root mass. Material from the rhododendron or any plant waste containing rhododendron must be chipped/burnt on Site or removed to licensed landfill as controlled waste. Appropriate measures should be taken to ensure areas of rhododendron are contained during works to avoid spreading.

4.52 All individuals on site should perform frequent checks for plant material on shoes, vehicle tracks and tyres, and equipment to prevent transfer of invasive plant material across the wider Leonardslee Lakes and Gardens Estate and beyond the ownership boundary.

FURTHER SURVEY REQUIREMENTS

4.53 Table 4.1 lists further survey requirements as recommended in the constraints section.

Table 4.1: Further survey requirements

Ecological Feature	Survey Requirement	Number of surveys and seasonal considerations
Bat Roost within the Stable block.	Three bat emergence/ re-entry surveys	Two dusk emergence surveys and one dawn re-entry survey. Two of the three surveys are required to take place by August 30th, with the third survey taking place before September 30th. Works will need to proceed under a Mitigation Licence from Natural England.
Dormice, reptile and great crested newts	Supervision of vegetation removal	Any vegetation removal to the east of the Site where the woodland should be done under the supervision of an Ecologist. Vegetation clearance should be completed within February to October inclusive

SUMMARY OF RESIDUAL EFFECTS

4.54 Provided that the above is adhered to, with the exception of the additional information required to assess impacts on roosting bats, all identified impacts to ecological receptors will have been addressed, with no residual impacts.

OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

4.55 Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects. Ecological enhancements can also contribute to green infrastructure and ecosystem services such as storm water attenuation and reducing the urban heat island effect.

Measures set out below can be used to achieve a net gain in biodiversity. Please note, however, that no formal calculations have been provided in this instance.

4.56 As proposals for this Site are part of a wider plan for multiple sites within Leonardslee Lakes and Gardens estate, enhancements should be made as part of an enhancement plan that covers the proposals for each Site within the Leonardslee Lakes and Gardens estate.

4.57 The following measures would be suitable for integration into the Site's design.

Dark-sky friendly lighting

4.58 The High Weald AONB Management Plan (2019) propose that public bodies and others 'follow the Institute for Lighting Professionals guidance; promote information on dark sky-friendly lighting; install outside lighting only when needed and use dark sky-friendly lighting' (objective OQ4) (High Weald Joint Advisory Committee 2019).

4.59 Consideration should be given to a sensitive artificial lighting strategy during construction and post-development with respect to breeding birds, dormice and foraging and commuting bats. This could include specifications for downward facing lights or the inclusion of baffles with light spillage kept to a minimum. During the construction phase artificial lighting should only be utilised where necessary for health and safety reasons with lighting only used for the period of time for which it is required (Jones, 2000).

Wildlife Planting

4.60 In order to provide enhancements with the aim of a net-gain in biodiversity, further planting in context within the setting of the Site and with wildlife value could be advantageous within the ownership boundary. Planting opportunities could include potted planters, planted trellis for climbing plant species and the use of hanging baskets. Whichever species are chosen, wildlife planting should include a diversity of native species of local provenance. The use of nectar-rich and berry producing

plants will attract a wider range of insects and birds and will continue to accommodate those already accessing habitats on Site.

4.61 Any new or replacement tree planting should be under-planted to improve structure and cover for wildlife.

4.62 Good horticultural practice should be utilised, including the use of peat-free composts, green manure, mulches and soil conditioners, native plants with local provenance, and avoidance of the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Provision of nesting opportunities

4.63 Installing bird boxes for nesting birds is recommended on Site, amongst the woodland in the east of the Site. Swift boxes can be installed on the building It is advised that swift boxes are placed high up under the eaves on buildings at least 5 metres above the ground. The entrance of swift boxes has been designed to deny sparrows and starlings from occupying the box.

4.64 Notwithstanding any requirements for a licence, roosting features for bats can be installed directly into the building. Bat Access tiles can create purpose made access points within the existing roof tiles or ridge tiles. Integrated boxes can be built directly into the brickwork of the building, or external bat boxes that can be mounted directly onto the wall.

4.65 Bat boxes can also be installed on trees within the woodland to the east, or other trees within the wider Leonardslee Lakes and Gardens Estate. The boxes should be sited on trees and walls as high as possible (no lower than 2 metres) and clear of any overhanging branches so that the bats have direct and easy access to them.

4.66 Woodcrete/woodstone bird and bat boxes (or equivalent sustainable material) are recommended as they are long lasting compared to wooden boxes, insulate occupants from extremes of temperature and condensation and are available in a broad range of designs.

Log piles and bug hotels

4.67 Log piles could be provided within areas of garden and flowerbed in the south of the Site to provide habitat for invertebrates associated with deadwood. Bug hotels are also a great way to increase insects and invertebrates on Site, forming an important dynamic essential for pollinating flowers and crops, while also providing vital food for other species, such as birds, bats and dormice.

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Appendix 1: Maps

Figure 1: Site Context Map

Project Title: Leonardslee Gardens			
Client: Leonardslee Estate			
Map Title: Site Context			
Scale: 1:15,000	Version: 02	Drawn: GA	Reviewed: JH

Legend

- Data Search Boundary For All Sites
- Development Sites
- 1- Visitor Centre
- 2- Engine House
- 3- The Stables
- 4- Museum
- 5- The Bandstand (site not detectable due to scale of map)
- 6- Car Park
- 7-Leonardslee House

Date: 21/03/2023

temple
Temple Group Ltd., The Clove Building,
4 Maguire Street, London, SE1 2NQ
Tel. 020 7394 3700

Figure 2: Local designated Sites Map

Project Title: Leonardslee Gardens			
Client: Leonardslee Estate			
Map Title: Local Designated Sites			
Scale: 1:22,000	Version: 02	Drawn: GA	Reviewed: JH

Legend

- Data Search Boundary For All Sites
- Data Search Boundary - 2km Buffer
- Development Sites
- 1- Visitor Centre
- 2- Engine House
- 3- The Stables
- 4- Museum
- 5- The Bandstand (site not detectable due to scale of map)
- 6- Car Park
- 7-Leonardslee House
- Ancient Woodland

Priority Habitats Inventory (South) (England) © Natural England

- Deciduous woodland
- Good quality semi-improved grassland
- Lowland fens
- Lowland heathland
- No main habitat but additional habitats present
- Traditional orchard
- Local Wildlife Site location
- Wood Pasture and Parkland

Date: 21/03/2023

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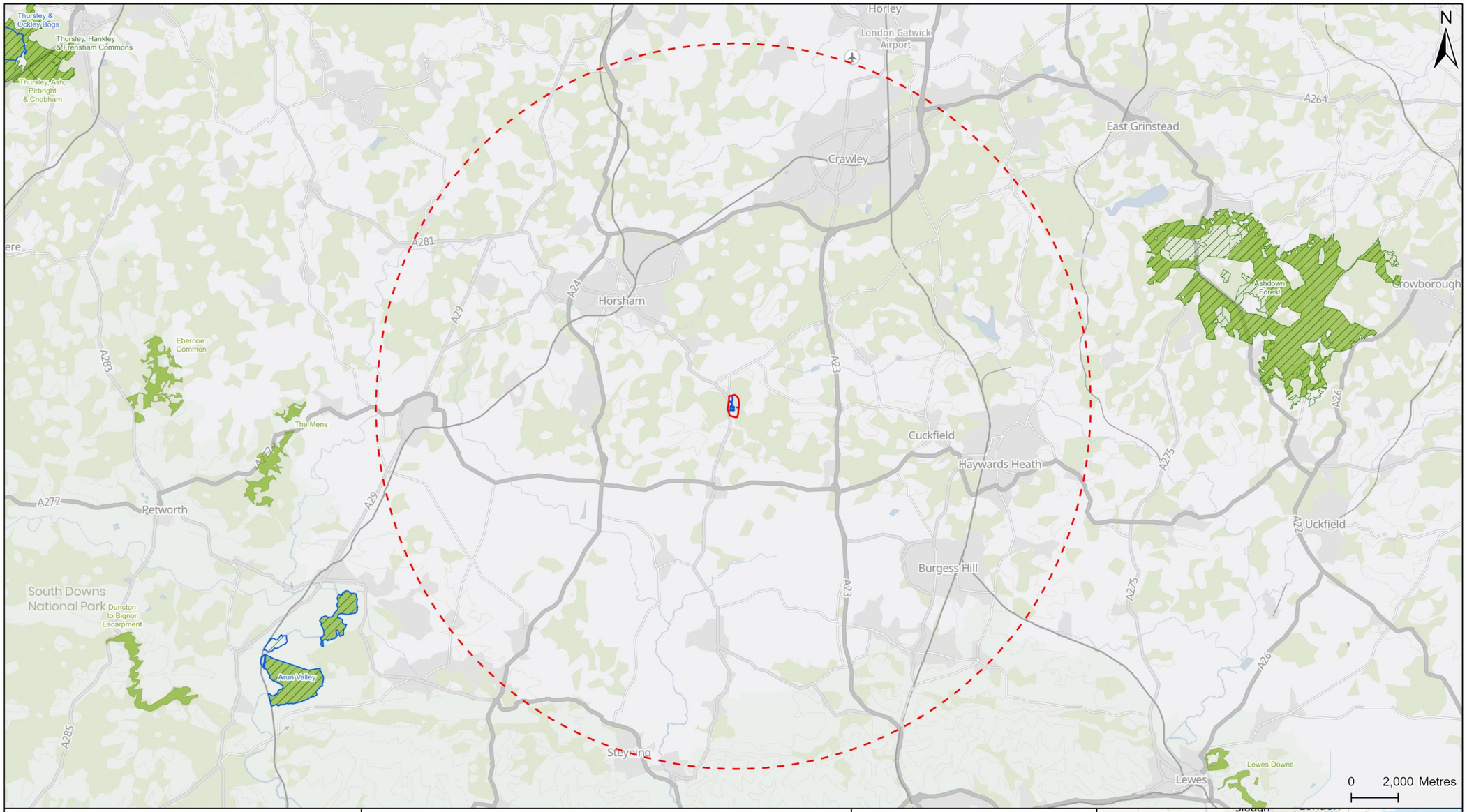
Figure 3: International designated sites



Project Title	T9105: Leonardslee Lakes and Gardens
Client	Leonardslee Estate
Map Title	International Designated Sites

Scale	Version	Drawn	Reviewed
1:150,000	1.5	JET	MW

Legend

- Data search boundary for all sites
- Development Sites
- Data Search Boundary - 15km Buffer
- Ramsar
- Special Protection Area (SPA)
- Special Areas of Conservation (SAC)

Date: 16/11/2023

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Figure 4: Habitat Survey Map

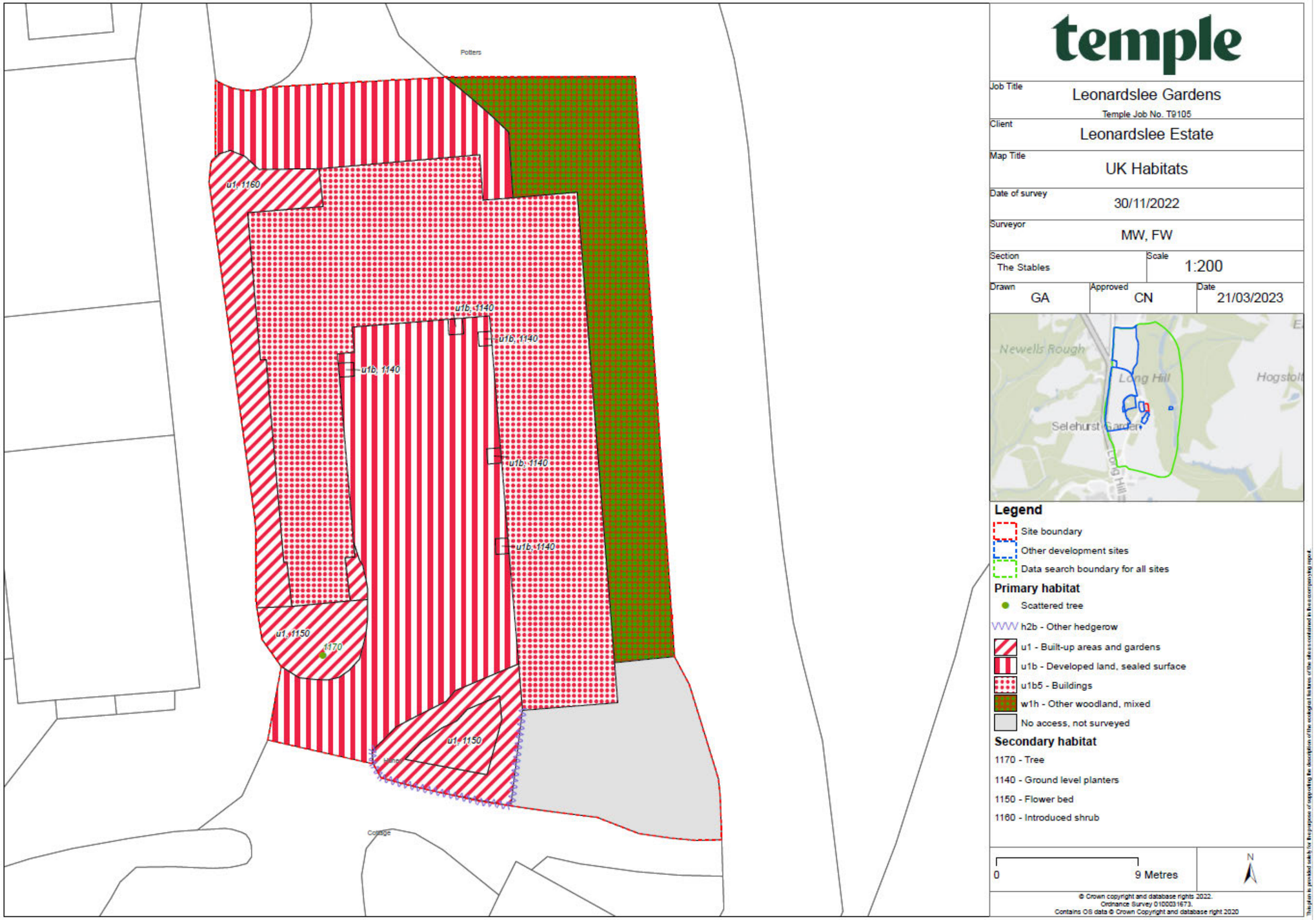
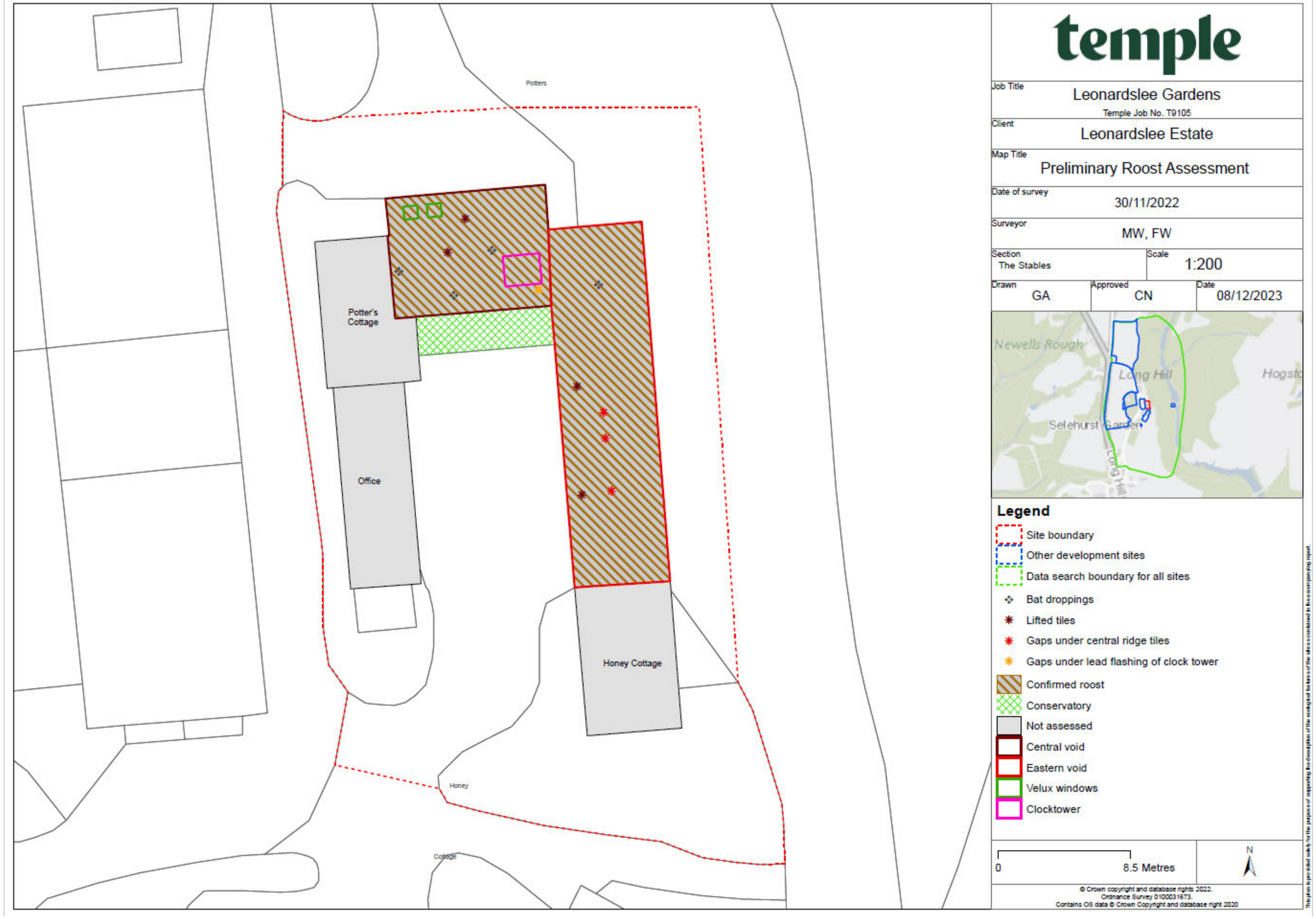


Figure 5: Preliminary Roost Assessment Map



Appendix 2: Species List

Botanical Species List for Stable Block, Leonardslee Lakes and Gardens compiled from UKHabs habitat survey carried out on the 30th November 2022.

Scientific nomenclature and common names for vascular plants follow Stace (2019) and Blockeel and Long (1998) for bryophyte species. Please note that this plant species list was generated as part of a Phase 1 habitat survey, does not constitute a full botanical survey and should be read in conjunction with the associated results section of this PEA.

Abundance was estimated using the DAFOR scale and additional notes taken as follows:
D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker, t=tree, h=hedgerow, w=water

Scientific Name	Common Name	Abundance	Qualifier
Buxus sp.	Box	LA	
Euphorbia sp.	Spurge	LF	
Festuca sp.	Fescue	D	
Geranium robertianum	Herb robert	O	
Glechoma hederacea	Ground Ivy	O	
Hedera sp.	Ivy	O	
Hydrangea sp.	Hydrangea	R	
Hypericum perforatum	St. John's wort	R	
Ilex aquifolium	Ivy	O	
Leyland cypress	Laylandii	H	
Pinophyta sp.	Conifer	R	
Pteridium aquilinum	Bracken	R	
Rhododendron sp.	Rhododendron	A	
Rubus fruticosus	Bramble	O	
Rumex acetosella	Sheep's sorrel	R	
Sedum sp.	Stonecrop	LA	
Verbascum thapsus	Mullein	R	

Appendix 3: Photographs

Photograph 1
Courtyard of Stable block, view looking north

Photograph 2
Offices on the west side

Photograph 3
North Aspect of Stable Block, with Potter's cottage to the right.

Photograph 4
East aspect of Stable Block where the building is adjacent to area of woodland

Photograph 5
Woodland to the east of the building

Photograph 6
Fig tree and flowerbed in the south of the site

Photograph 7
Flowerbed, conifer hedge and residential part of the stable block

Photograph 8
Internal roof void of the Stable block above the café, view looking west

Photograph 9
Pile of bat droppings in the void above the café

Photograph 10
Scattered bat droppings in the void above the kitchen of the Stable Block

Appendix 4: Bat DNA Genotyping Results

WARWICK
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EcoWarwicker
Ecological Forensics

25 January 23

Re: Identification Results for Maisie Worthington, The Temple Group

Job number 19275, received 12 January 2023
Sample labelled: POP003487 Project 9105 Leonardslee Gardens - Stable Block - Kitchen 30/11/22
PCR amplification successful. DNA sequence:
ATGACCAACATTCGAAAATCCCACCCTCTCATAAAAATTATCAATGACTCATTCATTGACTTACCTGCTCCCTCAAATATTTCATCGTGATGAAACTTTGGATCTCTTCTAGGCATTTGCCTAGCAC

Phylogenetic analysis identification: *Plecotus auritus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

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WARWICK
THE UNIVERSITY OF WARWICK

EcoWarwicker
Ecological Forensics

25 January 23

Re: Identification Results for Maisie Worthington, The Temple Group

Job number 19276, received 12 January 2023
Sample labelled: POP003487 Project 9105 Leonardslee Gardens - Stable Block - Cafe 30/11/23
PCR amplification successful. DNA sequence:
CCAACATTCGAAAATCCCACCCTCTCATAAAAATTATCAATGACTCATTCATTGACTTA
CCTGCTCCCTCAAATATTTCATCGTGATGAAACTTTGGTCTCTTCTAGGCATTGCCTA
GCACT

Phylogenetic analysis identification: *Plecotus auritus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

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WARWICK
THE UNIVERSITY OF WARWICK

EcoWarwicker
Ecological Forensics

25 January 23

Re: Identification Results for Maisie Worthington, The Temple Group

Job number 19277, received 12 January 2023
Sample labelled: POP003487 Project 9105 Leonardslee Gardens - Stable Block - Caf√© Wall 30/11/24
PCR amplification successful. DNA sequence:
ATGACCAACATTCGAAAATCCCACCCTCTCATAAAAATTATCAATGACTCATTCATTGA
CTTACCTGCTCCCTCAAATATTTCATCGTGATGAAACTTTGGATCTCTTCTAGGCATTT
GCCTAGCAC

Phylogenetic analysis identification: *Plecotus auritus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

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Appendix 5: Habitat Condition Assessments

Habitat Condition Assessment Proforma 1: w1g Other woodland; broadleaved

CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 3.1 - AREA BASED HABITATS			
Date	30th November 2022	Metric 3.1 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	
Weather conditions	Clear, cold		
Surveyor name(s)	Francesca West, Maisie Worthington	Unique polygon reference(s)	
Project / development name	Leonardslee Garden	Metric 3.1 habitat type	w1g Other woodland; broadleaved
Site name or location	Stable Block	Condition assessment required? (y/n)	Y
Onsite or offsite?	On site	Condition sheet used	Y
Reason for assessment (if not baseline condition survey)	Baseline		
Limitations (if applicable)	N/A		

Habitat description
In the east of the site, the building adjoins the woodland that makes up the wider area. The woodland continues beyond the boundary of the site down the hill to where the woodland is designated Ancient Replanted Woodland (Natural England, 2022). The woodland within the site boundary is comprised mainly of Rhododendron and laurel. The understory within the site boundary was composed of ivy, bramble, sheep Sorrell, Robert, St Johns wort.

Allocate pass 'P' or fail 'F'. Allocate 'NA' to any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria.
For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	**TOTAL**
Result	1	2	1	2	1	2	1	2	2	1	2	1	1	19
Photo ref														
Target note ref														

Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N/A	Condition (Good/Moderate/Poor):	Poor
Suggested enhancement interventions to improve condition score			

Habitat Condition Assessment Proforma 1: H2b Other Hedgerow

CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 3.1 - AREA BASED HABITATS			
Date	30th November 2022	Metric 3.1 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	
Weather conditions	Clear, cold		
Surveyor name(s)	Francesca West, Maisie Worthington	Unique polygon reference(s)	
Project / development name	Leonardslee Garden	Metric 3.1 habitat type	H2b Other Hedgerow
Site name or location	Stable Block	Condition assessment required? (y/n)	Y
Onsite or offsite?	On site	Condition sheet used	Y
Reason for assessment (if not baseline condition survey)	Baseline		
Limitations (if applicable)	N/A		

Habitat description
There is a small conifer hedgerow that surrounds the flowerbed in the south of the site and separates it from the residential garden and path leading away from the site. The hedgerow is comprised entirely of conifer and is approximately 12m long with a height of approximately 1.2m.

Allocate pass 'P' or fail 'F'. Allocate 'NA' to any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria.
For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A1	A2	B1	B2	C1	C2	D1	D2	N/A	N/A	N/A	N/A	N/A	**TOTAL**
Result	F	F	F	F	F	P	F	P	NA	NA	NA	NA	NA	2
Photo ref														
Target note ref														

Are any criteria non-negotiable? (Y/N) If Yes are they passed?	No	Condition (Good/Moderate/Poor):	Poor
Suggested enhancement interventions to improve condition score			

Appendix 6: Legislation and Planning Policy

Important Notice: This section contains details of legislation applicable in England and Wales only (i.e. not including Scotland, the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to represent the current (at the time of writing) situation with respect to the UK's position outside of the EU and to ensure accuracy throughout, this section should not be relied upon as a definitive statement of the law.

Over the past few years, three important bills have been published which are intended to shape how growing pressures on the environment post-Brexit (post-transition period) are tackled. Both the Agriculture Bill and Fisheries Bill gained Royal Assent in November 2020 and are now the Agriculture Act 2020 and Fisheries Act 2020 respectively; and, more recently, the Environment Bill was passed into law in November 2021, becoming the Environment Act 2021. *N.B. as environment policy is a devolved matter, most of this Act applies to England only.*

A LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[11] is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by **The Conservation of Habitats and Species Regulations 2017 (as amended)** and **The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)**.

Various amendments to the 2017 Regulations in England and Wales have been made through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. These changes came into effect on the 1 January 2021 following the UK's departure from the EU and the end of the Transition Period. The changes are largely limited to 'operability changes' that will ensure the Regulations can continue to have the same working effect as before.

[11] Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

As well as delivering long-term targets to reduce waste and improve resource efficiency and improve air and water quality targets, the **Environment Act 2021** aims to halt the decline of nature by 2030, mandates Biodiversity Net Gain for developments in England and amends the Wildlife and Countryside Act 1981 (as amended) to introduce an additional purpose for granting a protected species licence in relation to development which is 'for reasons of overriding public interest'. The Act also introduces the Office for Environmental Protection (OEP), which will be a new public body intended to hold government and public authorities to account, although the government will be able to issue guidance to the OEP on how it enforces policies and legislation.

Some of the key biodiversity elements in the Act that will have a bearing on species protection in the UK include:

- A strengthened biodiversity duty on Local Planning Authorities;
- Biodiversity net gain to ensure developments, including Nationally Significant Infrastructure Projects (NSIP), deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures;
- Conservation Covenants;
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature;

- Introduces the power for the Habitats Regulations to be amended or 'refocused' to 'to deliver creative public policy thinking that delivers results'.

This section does not provide further detail on the Environment Act 2021 as, at the time of writing (November 2021), the Act, in its final form, has not been published and it remains to be seen how and when the various elements will be enacted at a national and local level.

Other legislative Acts affording protection to wildlife and their habitats include:

- Salmon and Freshwater Fisheries Act 1975;
- Deer Act 1991;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- The Eels (England and Wales) Regulations 2009; and
- Environment (Wales) Act 2016.

Species and species groups that are protected or otherwise regulated under the aforementioned legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2017 (as amended), which includes smooth snake, sand lizard, great crested newt, natterjack toad, all bat species, otter, dormouse and some plant, invertebrate and fish species, are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Habitats Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

- The Conservation of Habitats and Species Regulations 2017 (as amended) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered where relevant.
- In order to obtain a mitigation licence for species protected under the Conservation of Habitats and Species Regulations 2017 (as amended), the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

BADGER

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991 and is amended, in Scotland, by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011. The Act makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger;
- Cruelly ill-treat a badger, including use of tongs and digging;
- Possess or control a dead badger or any part thereof;
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett[12] or any part thereof;
- Intentionally or recklessly disturb[13] a badger when it is occupying a badger sett;

[12] A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) has issued guidance on what is likely to constitute current use of a badger sett: https://webarchive.nationalarchives.gov.uk/20140605121602/http://www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

[13] For guidance on what constitutes disturbance and other licensing queries, see Natural England (2006 revised 2011) Badgers & Development: A Guide to Best Practice and Licensing (IN75) https://webarchive.nationalarchives.gov.uk/20150303064749/http://publications.naturalengland.org.uk/publication/73034; Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett

- Intentionally or recklessly cause a dog to enter a badger sett; and
- Sell or offers for sale, possesses or has under his control, a live badger.

[redacted]

BATS

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats);
- Deliberate disturbance of bat species as:

https://webarchive.nationalarchives.gov.uk/20150303064749/http://publications.naturalengland.org.uk/publication/73034; and Natural Resources Wales (2018) Badgers – A Guide for Developers https://cdn.naturalresources.wales/media/684003/badger-fact-sheet-for-developers-english.pdf?mode=pad&rnd=131620320080000000 and Guidance on working close to badger setts without a licence via https://naturalresourceswales.gov.uk/permits-and-permissions/species-licensing/uk-protected-species-licensing/badger-licences-issued-by-natural-resources-wales-and-the-welsh-government/?lang=en

[14] Natural England and Natural Resources Wales will only consider issuing a licence where detailed planning permission (if applicable to operation) has already been granted.

a) to impair their ability:
    - to survive, breed, or reproduce, or to rear or nurture young; or
    - to hibernate or migrate.

b) to affect significantly the local distribution or abundance of the species.

- Damage or destruction of a breeding site or resting place; and
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost[15].

[15] Garland and Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. **150**. The Mammal Society, Southampton.

BIRDS

All wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). A wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Among other things, the legislation makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird; or
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl *Tyto alba*, black redstart *Phoenicurus ochruros*, hobby *Falco subbuteo*, bittern *Botaurus stellaris* and kingfisher *Alcedo atthis* receive additional special protection under Schedule 1 of the Act. This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young.
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction is to undertake work outside the main bird nesting season which typically runs from March to August[16]. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

[16] It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species, geographical location of the site and vagaries of the season in any

Those species of bird listed on Schedule 1 are also protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest. It should be noted that there is no threshold under which disturbance is not an offence, that is to say that disturbance need not be 'significant' for an offence to be committed.

While it is possible to obtain a licence to permit some activities that would otherwise constitute an offence, these can only be issued for specific purposes set out in the Act. This includes damage to crops, to preserve public health or safety and to preserve air safety, but does not include development, some land management and recreational activities and damage to property.

DORMOUSE

Dormice *Muscardinus avellanarius* are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. dormouse);
- Deliberate disturbance of dormice as:
  a) to impair their ability:
     (i) to survive, breed, or reproduce, or to rear or nurture young; or
     (ii) to hibernate or migrate.
  b) to affect significantly the local distribution or abundance of the species.
- Damage or destruction of a breeding site or resting place; or
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

particular year) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Dormouse are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5 in respect to sub-sections 9 (4) (b) and (c) and 9 (5). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection; or
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to dormice liable to affect development works?

A mitigation licence issued by the relevant countryside agency (e.g. Natural England and Natural Resources Wales) will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Once evidence of dormouse has been found within a site, all contiguous, suitable habitat should be regarded as supporting dormice. Thus, if clearance of suitable habitat is proposed away from, but contiguous with, an area where a dormouse nest was found, a licence is likely to be required, even if no evidence was found within the specific section to be removed.

HERPETOFAUNA (AMPHIBIANS AND REPTILES)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, great crested newt *Triturus cristatus* and pool frog *Pelophylax lessonae* receive full protection under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2;
- Deliberate disturbance of any Schedule 2 species as:
    - to impair their ability:

        - to survive, breed, or reproduce, or to rear or nurture young; and
        - in the case of animals of a hibernating or migratory species, to hibernate or migrate.
    - to affect significantly the local distribution or abundance of the species.
- Deliberate taking or destroying of the eggs of a Schedule 2 species;
- Damage or destruction of a breeding site or resting place; and
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5). The pool frog is afforded protection in respect of sub-sections 9(4) (b) and (c) for England only. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection; and
- Selling, offering or exposing for sale, possession or transporting for purpose of sale (excluding pool frog).

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to sub-section 9 (1) & (5). For these species, it is prohibited to:

- Intentionally kill or injure these species; and
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to sub-section 9 (5) only which affords

them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation of Habitats and Species Regulations 2017 (as amended). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

PLANTS AND FUNGI

All wild plants are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence for an 'unauthorised' person to intentionally uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant and fungi, for example some species of orchid, red-tipped cudweed *Filago lutescens*, spiked speedwell *Veronica spicata*, holly-leaved naiad *Najas marina*, field cow wheat *Melampyrum arvense* and sandy stilt puffball *Battarraea phalloides* are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 13. This prohibits any person:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species; and

- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof.

In addition to the legislation outlined above, several plant species, such as slender naiad *Najas flexilis*, fen orchid *Liparis loeselii* and early gentian *Gentianella anglica*, are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017 (as amended). These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species; and
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

How is the legislation pertaining to protected plants liable to affect development works?

A mitigation licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect species of plant listed under The Conservation of Habitats and Species Regulations 2017 (as amended). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

INVASIVE PLANT SPECIES

Under Section 14 (2) of the Wildlife and Countryside Act 1981 (as amended), it is an offence to plant or otherwise cause to grow in the wild any species of plant listed on Part II of Schedule 9. Schedule 9 plant species include Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*. In the main, Schedule 9 species are those that are already established in the wild, but which continue to pose a threat to the conservation of native biodiversity and habitats, such that further releases should be regulated.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land per se, it is an offence to cause these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

As a rule, planting on managed land (private gardens, estates and amenity planting, for example), where it is expected that the spread of the plant will be kept under control, and where the plant will not have an adverse impact, is not regarded as planting in the wild and thus would not constitute an offence. However, where the plant is inadequately managed or contained and is likely to have an adverse effect, it may. Whether or not planting is an offence should therefore be judged on a case by case basis, taking into account the potential impacts on habitats and native flora and fauna, and the existence or extent of management practices to be employed[17].

B EUROPEAN AND NATIONAL LEGISLATION AFFORDED TO SITES AND HABITATS

As for certain species described above, habitats and sites are also protected directly through the Wildlife & Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations 2017 (as amended) and The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) through the notification, classification or designation of various protected sites as detailed below.

In addition, The Environment Act 2021 and the Water Framework Directive indirectly afford protection to non-designated habitats through the duties placed on public and private bodies to promote nature conservation and biodiversity, for example, the creation of Local Nature Recovery Strategies (LNRS) and associated Species Conservation and Protected Site strategies, and to reduce or avoid harmful activities. Many of these duties

[17] Defra (2010) Guidance on Section 14 of the Wildlife and Countryside Act, 1981. [ARCHIVED CONTENT] (nationalarchives.gov.uk)

and targets form the basis for national and local planning policy and wider conservation strategies and are not covered in detail here.

STATUTORY SITE DESIGNATIONS: NATIONAL

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSI) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (formerly referred to as part of the Natura 2000 network and recently amended to the National Site Network in line with the UK's departure from the EU) and globally (such as Wetlands of International Importance) - see subsequent sections for details of these designations. Improved provisions for the protection and management of SSSI have been introduced by the Countryside and Rights of Way Act 2000.

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

STATUTORY SITE DESIGNATIONS: INTERNATIONAL

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the basis of the **National Site Network** (until recently, these were part of the Natura 2000 network whilst the UK was part of the EU). SPAs are identified and classified by the Government under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds) via the mechanisms set out in the Habitats Regulations (as applicable at the time of classification).

SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2017 (as amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the classification and protection of European Marine Sites or EMS (SPAs and SACs) in UK offshore waters (from 12-200 nm).

SACs are identified and designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) via the mechanisms set out in the Habitats Regulations (as applicable at the time of designation). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2017 (as amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the designation and protection of European marine sites or EMS (SACs and SPAs) in UK offshore waters (from 12-200 nm).

Ramsar sites are listed under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSI) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites in England and Wales which have been designated under the EC Birds and Habitats

Directives as part of the Natura 2000 network and now the National Site Network (e.g. SACs and SPAs).

STATUTORY DESIGNATIONS: LOCAL

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation and provide opportunities for research and education and enjoyment of nature.

STATUTORY PROTECTION OF AQUATIC HABITATS

Water Framework Directive and The Environment Act 2021

Aquatic habitats are also afforded protection under The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, which transposes the Water Framework Directive 2000/60/EC (The WFD). At its core it aims to prevent deterioration of the water environment and improve water quality by managing water in natural river basin districts, rather than by administrative boundaries. It looks at ecological, physico-chemical, quantitative and morphological aspects of the water environment and requires that improvements take account of economic aspects, including costs and benefits. Plans to improve the status of water bodies are set out in River Basin Management Plans (RBMPs). The Directive aims for 'good status' of all ground and surface water (rivers, lakes, transitional water and coastal waters) in the EU and the UK. The Environment Agency and Natural Resources Wales are the competent authorities for river basin planning in England and Wales.

Any works which could affect the hydro-morphology, ecology or water quality of any classified waterbody up to 1nm out to sea requires an assessment under the WFD to demonstrate how any adverse impacts will be mitigated and, where possible, the status of the waterbody enhanced in order to achieve the required good status targets. Construction must have no permanent, unmitigated effects which cause any deterioration in the current status of any surface-water or groundwater body. If a WFD

assessment shows an activity will either cause a deterioration in the status of a water body or jeopardise a water body achieving good status, it may then be necessary to consider whether it meets the criteria for an Article 4(7) exemption[18].

The Environment Act also places a new statutory duty on government to produce a plan to reduce discharges from storm overflows, on water companies and the Environment Agency to publish data on storm overflow operation and on water companies to monitor the water quality upstream and downstream of storm overflows and sewage disposal works. The Act also contains a new duty on the water sector to create drainage and sewerage management plans and enables the revocation or variation of permanent abstraction licences where the change is necessary to protect the environment. This is because some older abstraction licences do not take account of fluctuating water availability and may enable too much water to be taken from the environment.

NON-STATUTORY DESIGNATIONS

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **Local Wildlife Sites** (LWS), **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in Local Plan documents under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies may vary between counties.

THE HEDGEROW REGULATIONS 1997

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage. Under the 'Wildlife and Landscape' criteria of the

[18] https://circabc.europa.eu/sd/a/e0352ec3-9f3b-4d91-bdbb-939185be3e89/CIS_Guidance_Article_4_7_FINAL.PDF

Regulations, a hedgerow is considered important if (a) it has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy important hedgerows without permission from the local planning authority. Hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys are covered by these regulations. Hedgerows *'within or marking the boundary of the curtilage of a dwelling-house'* are not.

C PLANNING POLICY

NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework replaced PPS9 and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species (see Section D below). An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species is also listed as a requirement of planning policy. In determining planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006 AND THE BIODIVERSITY DUTY

Section 40 of The Natural Environment and Rural Communities (NERC) Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

LOCAL PLANS

The Horsham District Council Planning Framework (2015) includes the following nature conservation policies that are relevant to the site proposals:

Policy 31: Green Infrastructure and Biodiversity

"1. Development will be supported where it can demonstrate that it maintains or enhances the existing network of green infrastructure. Proposals that would result in the loss of existing green infrastructure will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss, and ensures that the ecosystem services of the area are retained.

2. Development proposals will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. The Council will support new development which retains and /or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity through the creation of green spaces, and linkages between habitats to create local and regional ecological networks.

3. Where felling of protected trees is necessary, replacement planting with a suitable species will be required.

4. a) Particular consideration will be given to the hierarchy of sites and habitats in the district as follows: i. Special Protection Area (SPA) and Special Areas of Conservation (SAC) ii. Sites of

Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) iii. Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs) and any areas of Ancient woodland, local geodiversity or other irreplaceable habitats not already identified in i & ii above.

b) Where development is anticipated to have a direct or indirect adverse impact on sites or features for biodiversity, development will be refused unless it can be demonstrated that: i. The reason for the development clearly outweighs the need to protect the value of the site; and, ii. That appropriate mitigation and compensation measures are provided.

5. Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a HRA to determine the need for an Appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan".

The High Weald AONB Management Plan 2019-2024 (2019) includes the following nature conservation policies that are relevant to the site proposals:

Objective W1

To maintain the existing extent of woodland and particularly ancient woodland.
Rationale: To maintain irreplaceable habitats for biodiversity, to maintain a key component of the cultural landscape, and to maintain contribution to carbon storage.
Indicators of Success: i. No loss of ancient woodland (HWJAC: Ancient Woodland Inventory statistics)

Objective W2

To enhance the ecological quality and functioning of woodland at a landscape scale.
Rationale: To increase the viability of the woodland habitat for wildlife, by identifying and extending the area of appropriately managed woodland (including restoring plantations on ancient woodland) to link and enhance isolated habitats and species populations, providing

greater connectivity between woodlands and other important wildlife areas, and helping to facilitate species' response to climate change.

Indicators of Success:

i. Increase in proportion of woodland managed to remove invasive species (Forestry Commission: Woodland Grant data)

ii. Increase in woodland dependent butterflies (Butterfly Conservation: Butterfly count in sample areas)

iii. Length of hedges restored or replanted (HWJAC: multiple sources/sample areas)

Objective W3

To protect the archaeology and historic assets of AONB woodlands.

Rationale: To protect the historic environment of the AONB woodlands.

Indicators of Success: i. Increase in Historic Environment Records (HER) for woodlands (HWJAC: County HERs statistics

Objective OQ4

To protect and promote the perceptual qualities that people value.

Follow the Institute for Lighting Professionals guidance; promote information on dark sky-friendly lighting; install outside lighting only when needed and use dark sky-friendly lighting.

D BIODIVERSITY ACTION PLANS (BAPs)

Since the publication of the UK BAP in 1994, new strategies and frameworks have resulted in the development of biodiversity issues and changes in the terminology used to describe these habitats and species in England. This has been brought about through the replacement of the previous England Biodiversity Strategy with *Biodiversity 2020: A Strategy For England's Wildlife and Ecosystem Services* (2011) and the replacement of the UK BAP itself with the *UK Post-2010 Biodiversity Framework* (2012). All previous UK BAP species and habitats are still of material consideration in the planning process but are now referred to as Habitats and Species of Principal Importance (as described under the NERC Act 2006 above).

The distribution of BAP/priority habitats has been used to identify Biodiversity Opportunity Areas at a regional scale through Biodiversity Strategies/Partnerships. They represent a strategic landscape scale approach to habitat creation, restoration or expansion. They represent regional priority areas of opportunity to restore and create key habitats. They are therefore a spatial representation of targets for Habitats of Principal Importance and are areas of opportunity, not constraint.

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